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THE PUBLIC SECONDARY SCHOOL

*A Critical Analysis of Secondary
Education in the United States*

By

HERBERT G. ESPY

Professor of Education, Western Reserve University



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EDITOR'S INTRODUCTION

THE organization of public secondary education in the United States has been the product of external pressures as often as it has been the result of internal planning. Pressure from citizens who wanted for their sons and daughters the kind of education which private academies were offering the children of the well-to-do was perhaps the most potent cause of the rapid spread of public high schools in the nineteenth century. The pressure of increasing enrollments in the upper elementary and lower high-school grades seems to have had more weight than any preconceived notion as to the educational needs of adolescents, in bringing about the establishment of separate junior high schools. Pressure of growing enrollments at a higher level has led in recent years to a widespread demand for junior colleges; while a decrease in pressure in the lower school grades, resulting from a declining birth rate, has caused numerous school systems to abandon the junior high-school organization defended twenty years earlier as an educational panacea.

Within the schools these external pressures have been variously recognized. A small number of schools have made a virtue of yielding at the slightest provocation, introducing new subjects of study, new methods of teaching, new forms of organization, whenever outside "demand" seemed to shift. A much larger number have resisted change, modifying their programs only when they were forced to do so, and rationalizing their conservatism by references to intellectual discipline, educational standards, and the cultural heritage of the western world. In only a minority of the twenty-five thousand public secondary schools of the United States are there now to be found educational programs which are the result of systematic and disinterested analysis of both external needs and internal values.

That such an analysis is important at the present time becomes increasingly evident. Social and economic forces outside the schools have radically altered — and are continuing to alter — the world for which young people are being educated. School programs which "worked" a few years ago, in the sense that boys and girls who had

been exposed to these programs adjusted themselves fairly readily to out-of-school conditions, no longer "work" in anything like the same degree. If present-day secondary schools are to make a substantial contribution to the welfare of the young people whom they serve, they cannot be content either with grudging concessions to external forces, or with being lured this way and that, on a blind trial-and-error basis, by every attractive proposal for change.

To the constructive planning of the secondary-school program, as opposed to the adoption of a forced program or a merely adventitious one, the present volume makes an important contribution. Its author has been a high-school teacher and a high-school principal. As a member of the departments of education of two universities he has helped to prepare teachers and administrators for work in the schools. For a year and a half he was intimately associated with the evaluation of the whole program of secondary education in New York State, as a staff officer of the Regents' Inquiry into the Character and Cost of Public Education in that state. Drawing on both his experience and his thoughtful observation of current educational theory and practice, he presents in this book a strikingly detached account of what the American secondary school of today is like and of how it has come to be what it is, a penetrating analysis of the secondary school's strengths and weaknesses, and a description illustrating the kind of basic program which he believes American secondary schools should develop if they are to render their fullest possible service to the public which supports them and to the boys and girls for whom they exist.

Though the book may well be studied as part of an introductory course in secondary education, it is not intended as a beginning text for immature students. Nor is it likely to be a suitable text for students and teachers of education who want only a neutral commentary on educational practice. Its purpose is to stimulate constructive thinking about secondary education in the United States, on the part of reasonably mature students who possess both the capacity and the inclination to think. In accordance with that purpose it offers in the author's own discussion, in his comments on current educational literature, and in the problems which he suggests for further consideration by serious students, an intentionally provocative starting-point for systematic professional study. As a book of constructive criticism

rather than of mere description, it should be of positive service in the preparation of teachers and school officers who intend to shape their schools according to well-thought-out plans, instead of letting their schools be shaped for them by circumstances which they neither carefully examine nor seek to control.

FRANCIS T. SPAULDING

P R E F A C E

EDUCATORS, no less than members of other professions, merit approval for their characteristic habit of self-criticism. It has become traditional for teachers and school officers to speak openly of problems and weaknesses in the work of the schools. During recent decades, however, it has been more difficult to recognize the needs to be met and to assess the schools' efforts to meet them. For the mere numerical expansion of the schools' enrollments has taxed the energy and attention of both educators and laymen. The quantitative aspects of this growth have indeed been so compulsive as to distract or discourage attention from the need for change and the making of improvements.

But it now becomes clear that a shift in emphasis is appropriate. Mere physical expansion is definitely slackening, and will not long persist. The secondary school can now more readily examine its condition, clarify its purposes, and revise its practices. Evaluation and revision are increasingly needed, for the youth in school today are by no means the same as those who came to it when the dominant characteristics of its program were being established. Moreover, the public, which has thought so well of its secondary schools as to make them its chief social agency for the development of youth, is somewhat uncertain, or at times even skeptical of the values of secondary education. In such conditions the secondary school deserves from all who assume any active role in shaping its future, the most intelligent and constructive criticism of which they are capable.

Although appraisal and criticism are obviously prerequisite to intelligent efforts for improvement, criticism alone is not enough. Unless it deals with problems so simple that to discover a weakness is to suggest a remedy, or unless it results in the development of tangible betterments, criticism is wasteful or harmful. If the secondary school is to fulfill the hopes of those who most believe in it, it needs well-considered proposals for improvement no less than it deserves criticism.

These two needs have chiefly influenced the planning of this book. It has been written in the hope that it will be of some help both to young men and women who look forward to active service in secondary

education and to those who are already at work as teachers or school administrators.

Perhaps it should be explicitly stated here that Parts I and II of this volume have been written much more factually and objectively than Parts III and IV. The historical background of the secondary school and the characteristics of its pupils, as well as the purposes of the school, are, relatively, matters of fact. They must be understood and accepted whether we like them or not. They can be judged, but they cannot be changed very much. Most readers presumably are not so situated as to become very familiar with these matters through their own personal experience or observation. All of these considerations have suggested that the first two parts of the book should be more informative than critical.

Because the actual practices of the conventional secondary school are so easily observed and known, and because these practices are assumed to be so readily subject to revision, they seem not so much to require factual exposition of their details as forthright criticism. In Part III, therefore, the author has taken into account the views of more competent critics, and he has so far overcome his own timidity as to add a few of his own for good measure. The thoughtful reader should not be content either to accept or to reject the facts and ideas presented without considering much more that is readily available in print and without applying to all that he reads his own knowledge and intelligence. Hence he will find, in addition to many footnote citations, extensive bibliographies and suggestions for further reading, as well as lists of questions and projects to aid him in developing his professional insight.

Part IV, which describes in concrete terms a type of educational program which should contribute more effectively to the realization of the secondary school's major purposes, will at least give the reader an opportunity to use his critical judgment. Indeed, if he does not evaluate it critically, he probably should not even read it. The author hopes that this description contains ideas which can at least be used in part in the secondary school in which the reader may have a direct interest. Some of them have been thus utilized by members of his university classes. Some have been borrowed from schools which have used them successfully. Others have not, so far as the author knows, been tested in actual school practice. Although this attempt

to outline an improved secondary-school program represents a sincere effort to recommend desirable changes in the secondary school, it will best serve its intended purpose if it stimulates the reader to work out a better program.

It is a pleasant privilege here to record the author's deep sense of indebtedness to many individuals. He wishes that what he has written might more creditably reflect his sincere respect for the intellectual contributions of Charles Beard, Boyd Bode, Thomas Briggs, Merle Curti, Henry Holmes, Charles Judd and Francis Spaulding. To the latter and also to Howard Wilson and Blanche Espy, he is grateful for much valuable help in the preparation of this book. Unwittingly perhaps, but none the less valuably, many students in university classes and officers and pupils in secondary schools have increased his appreciation of the secondary school and his faith in its future. He is glad to acknowledge also his special obligation to the authors and publishers who have so generously granted permission to quote valuable materials.

H. G. E.

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PART I

AN INTRODUCTION TO THE
SECONDARY SCHOOL

INTRODUCTION

THE American secondary school is fast becoming our common school. Less than a score of years ago only a small proportion of young people came to the high school. Few of them remained long enough to experience much of its highly academic program. High-school graduates were a select group, favored by the character of their family backgrounds, fortunate in the possession of superior scholastic aptitude, and exceptional in the prospect of going on to college. But changes have come swiftly. The majority of boys and girls now enter the secondary school as a matter of course. If they are not all eventually graduated, they normally spend substantial periods of time in the secondary school. In their varied social and economic status, their personal qualities, their expectations, and their individual destinies they represent the broad range of contemporary American society.

Secondary education is noteworthy not merely for its growth in size. Its increased quantitative scope inevitably produces changes in its function as a social enterprise. A school which diverts from life's everyday course of experience only a few young people to whom it offers exceptional academic privileges may justly be very partial also in the choice of its purposes and program. But a school which undertakes to educate all boys and girls, whose membership in school is required by law, accepts a moral obligation and a social mandate to direct its aims and to shape its program to their needs as potential members of society. It is interesting and important to know that a majority of American young people attend secondary schools, but the mere fact of their being there is not decisive. What they are doing and what is being done to them in the secondary school are both supremely important.

What happens to a boy or girl who becomes a member of a secondary school depends considerably upon the particular school which is available to him. Hundreds of high schools are small, enrolling only a few dozen pupils, having only three or four teachers, and offering only a

very meager program of conventional subjects of instruction. Hundreds of others are very large organizations, which enroll well over a thousand pupils, enlist the services of scores of teachers, and offer programs of such variety as to make the matter of working out a schedule of classes a highly complex and laborious problem. Hence, the fact that a boy is in a secondary school does not precisely indicate what sort of education he may be getting. By and large, however, the general patterns of secondary-school practice are so conventional that what happens to the members of one school is very much like what happens to the boys and girls who attend another. Particularly in schools of small or moderate size, which ordinarily offer a program so limited as to provide few opportunities for individual choice, the experiences and activities of pupils in any particular school at any particular time could easily be predicted from a knowledge of secondary schools in general.

A simple statement of the day-to-day business of a secondary school is hard to make. Asked what was done in his school today, a pupil might say, "I got ninety-four in mathematics. And was it tough!" His father might aver hopefully that "a high-school education is a good thing. It trains youngsters to think, develops their characters, and helps to make them good citizens." Commenting on the same business a school official could explain, "Our school is creating an integrated curriculum based on community needs and planned to provide meaningful experiences whereby the individual child may develop his interests and abilities in order to adjust himself happily to a changing social order." All of these reports may be honest without being adequate.

The following statement of the typical activities of a secondary school may also seem inadequate. It makes no substantial reference to the remote ends, the intangible by-products, and the theoretical claims with which any discussion of schooling must inevitably be involved. It merely describes in relatively simple and direct terms what anyone would see if he could conveniently spend a few days visiting several secondary schools.

Boys and girls in the ninth grade of the American secondary school almost universally devote about three-quarters of an hour daily to a variety of activities which are collectively identified as "English." In the English class the ninth-grade pupil usually reads in piece-meal

fashion during the year certain pieces of fiction, poetry, and drama. Scott's *Ivanhoe*, a metrical translation of Homer's *Odyssey*, *The Rime of the Ancient Mariner*, Shakespeare's *Julius Caesar*, or *The Vision of Sir Launfal* are staple selections. The pupil is ordinarily expected to study these materials somewhat minutely, so as to be able to tell his teacher and his fellows as well as he can what the story is about; to make some vague guesses concerning the author's literary style; to identify and explain certain similes, metaphors, and other figures of speech; to know at least temporarily a few facts concerning the author's nationality and biography; to read aloud and to write about certain sections of what he has read, and to summon up enough imagination to tell his teacher why he likes to read what he has read. By doing these things repetitively it is possible for the pupils in a ninth-grade class to spend several days or weeks in dealing with a literary selection which a pupil could read in a few hours, if he wished to do so. Along with this work with literature the pupil carries on a variety of somewhat similar activities. He is made frequently to do such writing as is suggested by these titles: "My Most Interesting Experience," "How I Spent My Summer Vacation," "A Letter Inviting a Friend to Come for the Week-end," "A Formal Invitation," "My Favorite Pastime," "How to Get from the Post Office to Our High School." The subject matter of these exercises is, of course, for the most part quite fictitious and unimportant, since the chief purpose in doing them is to see whether the pupil can avoid making the mistakes to which English teachers particularly object. Although his work in English is chiefly oral, since the pupil or his teacher is almost always talking or listening to someone else talk, the ninth-grader is likely to do somewhat more formal oral work. It may be that he will be expected one day a week to stand before the class and repeat a brief news item which he has clipped from a magazine or newspaper and memorized, or, if the standards are somewhat more rigorous, he will display his prowess in presenting the same sort of thing "in his own words" and in the full expectation that someone will soon feel called upon to tell him whether or not he has done well.

Ordinarily the ninth-grade pupil will also devote much time and effort to the attempt to learn how to do with literal symbols and algebraic methods some of the things which he once knew how to do with numbers and arithmetic processes. In this connection he learns

about the importance of "changing signs when removing parentheses," and how to multiply a polynomial by a polynomial, to find the sum of the coefficients of a common factor, to divide with fractional exponents, to draw a graph to represent a linear equation, and to solve a quadratic equation graphically. Ordinarily these algebraic exercises are carried on with very little reference to anything else. Having no apparent connection with anything which the pupil understands or is interested in, they would be exceedingly difficult for him to cope with were it not for the fact that they are very systematically classified and presented in a textbook. Since the textbook usually shows the pupil just what to do in solving a problem of a particular type and since almost all of the problems with which a pupil is confronted at any one time are of a single type, the pupil can get the right answers to most of them by applying a particular rule of thumb. If he manages on the average to get most of the answers, he is allowed at the end of the year to withdraw creditably from this particular kind of activity. But if he demonstrates his unwillingness or inability to get an acceptable proportion of the right answers, he stands a good chance of being required to spend another school year in a repetition of this highly formalized procedure.

Particularly if someone hopes that he will perhaps eventually have an opportunity to go to college, but possibly for no reason in particular, the ninth-grader is likely to devote several hundred hours during the school year to some rudimentary efforts to acquaint himself with a foreign language. Before the year is over he will probably have learned to say in Latin some such thing as "the sailor gives the girl a rose" or to use French to ask "what is the name of Marie's grandmother?" In addition he will have read a good many disconnected sentences in the foreign language. He will have learned to understand a few simple phrases. And he will have memorized at least temporarily a large number of syntactical elements and grammatical rules covering their use.

These experiences the pupil is almost certain to have. Other parts of his scholastic training are somewhat more uncertain. It is not unlikely that he will receive instruction concerning the chronological, dynastic, political, and artistic affairs of certain ancient peoples, particularly the peoples inhabiting Egypt, Palestine, Babylonia, Greece, and Rome. He will learn something of the personal characteristics of

their most notable leaders. And he will achieve at least a sketchy and fleeting familiarity with their wars, territorial fluctuations, religious practices, architecture, personal attire, and laws. He will also get some practice in stating the causes of the rise and fall of each of these ancient civilizations. Most of the pupil's information on these matters will come from a single textbook, of which he will be expected to read a few pages daily. If at the end of the year he can briefly reproduce in writing a few of the ideas thus obtained, along with some of his own opinions concerning them, he may reasonably expect to encounter nowhere else in his secondary-school career any substantial further reference to the matters dealt with in the course in ancient history. If he has been less successful in meeting his teacher's expectations, he may find it necessary to repeat the course and to spend another year reading the same textbook over again.

If he attends a school that offers instruction in community civics instead of in ancient history, our ninth-grade pupil will read a book in which he finds somewhat roseate and superficial descriptions of the features of an urban community. He will learn that it is a pleasant and desirable thing for a city to have extensive parks, schools, sewage systems, health officers, a fire department, citizens who vote conscientiously, and a complex organization of benevolent and competent public officials. Ordinarily this instruction is decidedly bookish, and there is a good chance that a pupil may study community civics for a year without giving substantial attention to the actual conditions in his own local community.

In addition to these matters, or possibly in place of some of them, the pupil may take a course in general science. If so, he will learn that warm air rises, that bedroom windows should be opened at night, that doorbells are actuated by little electro-magnets, that certain food materials are good sources of vitamins, that oxygen supports combustion, that micro-organisms are in some cases helpful and in other cases harmful to man and that they can be killed by boiling — and more besides. If physical geography is taken in place of general science, the pupil will find out about horse latitudes, pothole erosion, meteors, geologic faults, lunar eclipses, the names of different kinds of clouds, and other like matters.

If he happens to be living in a rural community, the ninth-grade boy may have an opportunity to substitute for almost any of these

subjects except English some training intended to encourage him to become a farmer and to give him some instruction and training in preparation for farming. If the ninth-grade girl goes to a school which undertakes to provide more than a strictly academic program of school subjects, she may be able to get some training in sewing and cooking, and possibly in certain other aspects of the ordinary routine of the maidless housewife.

To supplement this curricular routine the pupil may be made regularly to indulge in vigorous gymnastic exercises or group games. He may play basketball, volleyball, or baseball. If he likes this sort of thing well enough to give much time and most of his attention to it, he may become the member of a school team which receives skilled coaching from a specialist in athletics and plenty of adulation from his companions. This is called health education.

There are, of course, certain other activities in which he may have opportunity to engage regularly, if he chooses to do so. He may, for example, try his hand at playing a trombone in the school band, or he may attempt the almost equally difficult feat of dancing to the music it produces. He may become a member of a vocal chorus, which sings almost anything from "Swing Low, Sweet Chariot" to "The Anvil Chorus" from *Il Trovatore*.

Although some of these activities are obviously exercises or drills formally conducted under more or less expert supervision, the bulk of the pupil's school work is concerned predominantly with tasks in which he is expected to read carefully a few pages in a textbook so that he may either remember what he has read or perform certain written exercises prescribed by the book. Within twenty-four hours thereafter the teacher who assigns these tasks will attempt to ask enough questions to find out whether or not they have been performed. The teacher will proceed also to lay the foundation for other very similar tasks. Each morning sees some task begun. The next morning sees it begun all over again.

Not unnaturally, the people who conduct the schools feel that it is necessary to set up some special means of discovering whether anything is being accomplished by this process. The pupil himself may wonder about this at times, as do his parents. Accordingly, the school usually takes time periodically to examine the pupil. The examination is in many respects similar to the routine processes of the school room. The

pupil is usually given a number of questions for which he is expected to set down in writing the correct answers. If he manages to set down a certain proportion of acceptable answers, his examination paper is given a mark which indicates that, for the present at least, the school is satisfied with his performance. As long as the pupil is able to garner enough of these satisfactory marks, his normal academic routine is not seriously disturbed, although he may at any time bring himself into very serious difficulty by being unruly or impolite to his teachers. The school is ordinarily disposed to try to keep the pupil in school for as many years as possible, and makes various adjustments by means of which an unsuccessful pupil may get the kind of marks which indicate that he is successful. One of the most common devices for this purpose is the practice of having a pupil repeat a year's work in a subject in which he has previously received the wrong kind of marks. Another is the method of shifting the pupil to a different course in the hope that he will get the right kind of marks in it. In some instances there is a sort of gentleman's agreement to the effect that a pupil whose performance is not satisfactory is to be given the sort of marks which indicate that it is all right for him to stay in school, and in some schools a special diploma is available for those who have not adequately met the requirements.

As the pupil goes on from year to year in the high school his activities are much the same, although his subjects of instruction may sometimes change abruptly. He may be sure of continuing his work in English, and before he has left the high school he will have read a Shakespearean tragedy; a few novels from such standard authors as Dickens, Hawthorne, Irving, and George Eliot, some lyric poetry, some essays, and possibly some contemporary books and periodicals. He will continue annually to get brief instruction and practice in the writing of letters. Just what he will learn is not precisely predictable, but it is reasonably certain that he will have acquired somewhat superficial familiarity with all manner of literary details. He may know how many lines make a sonnet, the difference between dactyls and trochees, that Byron died while still a very young man, that "literature is an interpretation of life in terms of truth and beauty," that Poe was a melancholy American who wrote a poem about a raven, or that Burke urged Englishmen to be more friendly toward Americans. Incidentally, the pupil will almost certainly acquire or develop certain rather

definite attitudes with respect to literature. Possibly these attitudes are more important than the factual details with which he becomes temporarily familiar, but it would be difficult to predict with any certainty what these attitudes are likely to be.

Although the pupil will probably do nothing further with algebra after he has left the ninth grade, he stands a very good chance of spending a year in the study of plane geometry. He will ordinarily devote most of his time to a sedulous attempt to demonstrate the truth of statements to the effect that the square on the hypotenuse of a right triangle is equal to the sum of the squares on the other two sides, that only one straight line may pass through two points in the same plane, and that the intersection of parallel lines is against the rules. Most of this work is closely restricted to the routine outlines definitely laid down in the textbook, although it is possible that the pupil will depart from the book to discover that on a sunny day nobody who wishes to know the height of the school flagpole needs to climb it with a measuring tape. After plane geometry has been put aside, it is most unlikely that he will pay any further attention to mathematics, although he may if he wishes turn back to algebra or delve into the abstract properties of sines and tangents in the study of trigonometry.

Along with these studies he may carry forward somewhat his rudimentary proficiency in a foreign language, although the chances are against his continuing this work beyond the second year or to the point of any useful facility in its use.

The kinds and amounts of his further study of history or other social studies are uncertain. If he stays in school until time for graduation, he will probably have studied American history somewhat more fully than he once studied the history of the ancient Egyptians, but through much the same methods and types of materials.

If the pupil expects to go to college and if he has been consistently successful in getting the right kind of marks theretofore, he will probably take a course in chemistry or in physics. If he studies chemistry, he will memorize the peculiar symbols by means of which (from his point of view) chemists make mystery of common things which common men call by their common names. He will have intimate acquaintance with the behavior of certain acids, bases, and salts. For the time being at least he will learn to speak more or less glibly of the internal economy of molecules, and in general he will begin to be aware

that many things are not merely what they have seemed to be. If the choice is physics, the pupil will learn how to define verbally ergs, work, efficiency, velocity, resistance, ohms, watts, magnetism, sound, pitch, and British thermal units. And in the laboratory he will perform some highly stereotyped experiments with certain simplified models and measuring devices.

What he may learn over and beyond the facts that he gleans from academic subjects will depend upon the extent and variety of opportunities which the school offers to him as a pupil. If it offers what it calls "commercial" subjects, he may get practice in typewriting or stenography, or he may make a beginning in the technical principles of bookkeeping. He may get some instruction in mechanical drafting. Particularly if his school happens to be relatively new and large, the subjects from which he may choose may be very numerous, so that he can get instruction or training in such diverse fields as journalism, stagecraft, welding, or art weaving. His own individual program, however, will be much more limited, for he will be required to maintain a program which regularly includes four or five different subjects as long as he is to remain acceptably in school.

Particularly in the upper grades of the school, the pupil may give a good deal of attention to matters other than his curricular studies. Indeed, the latter may occupy a minor place in his personal concerns. If he is athletic he may even remain in school chiefly because it gives him a most unusual opportunity to compete with other athletes. He may participate energetically in the opportunities for social relationships which are inevitable in some form or other. He may show enterprise in the management of any of the journalistic, literary, oratorical, musical, or athletic activities with which many schools supplement their academic programs. However, he must in any case remember that these opportunities will be open so long as he continues to get the required proportion of the right kind of marks in his academic subjects and to conform to the ordinary routine of the school, with at least outward obedience and respect for its officers and its rules.

If the pupil fails or is individually unfortunate in either of these matters, he will soon begin to receive the personal attention of certain school officers or specifically designated teachers who will give him advice or exhortation intended to improve his academic condition. In schools which do this in catch-as-catch-can fashion it is called

discipline. In other schools where prevention is the better part of valor and where there is more disposition to develop a more continuous personal interest in the pupil and to study his individual characteristics somewhat more fully, the attention which the school pays to the pupil is more likely to be a part of a definitely organized program of guidance. The ministrations of the disciplinarian or the guidance counselor are for the most part intended to make easier the pupil's satisfactory conformance to the school's customary routine, although the pupil's supposed future prospects are somewhat taken into account in shaping his academic program.

In spite of the school's effort to keep him in attendance long enough to be given a diploma, there is no guarantee that the pupil will stay in school. Particularly if his home background or personal bent makes it difficult for him to accede comfortably or acceptably to the school's requirements, he may leave school at almost any grade level. Although the school may regret his departure it will probably pay no further attention to him. His formal education may not have been complete, but it will be ended. What sort of person he becomes and what use he makes of education the school will probably not attempt to find out. While he seeks to shift for himself, if he can, and to find out what the world has in store for him of good or ill, the school will go on about the business of giving to other boys and girls much the same sort of experiences which it has provided for him.

On occasion the pupil may wonder whether the time spent in secondary schooling was profitably invested. He may even ask himself whether his education was at all valuable to him. If he decides that it was probably worth what it cost, he may still consider the possibility that it might well have been much more valuable to him. Other persons beholding him as a product of the secondary school may perhaps ponder the same question. Even though it may appear that his experiences in the secondary school have been valuable to the individual, conferring upon him certain benefits which he might not otherwise have had, his fellows may properly consider whether or not his schooling has resulted in commensurate benefits to them as well, for they have shared in providing it.

Although the former pupil may be able to arrive at answers which are at least definite enough to satisfy him, some persons would decline to accept his decisions, on the ground that he has not had an education

good enough to serve as a basis of competent judgment. Indeed, the judgments of his fellows might not be acceptable unless they were accompanied by evidence of a fairly thorough understanding of the complex character of the educational process and of definitely recognized criteria to be applied to it. In spite of the willingness of some persons, including a good many who are active participants and have certain vested interests in it, to make simple and easy judgments concerning the adequacy or inadequacy of the secondary school, the school and its work are not simple. The brief and cursory description which has been given in the previous pages illustrates this fact. Although it applies with reasonable accuracy to what goes on in thousands of our secondary schools, it is necessarily partial and incomplete. Some persons may be made uncomfortable by the apparent baldness and lack of euphemism in such a description. But the picture outlined needs not so much to be softened with roseate generalities as to be analyzed in much greater detail and supplemented extensively. The secondary school at its worst has at least a background of tradition which cannot be ignored by anyone who would understand why it is as it is. The secondary school at its best is an organic synthesis in which the continuities of a vital tradition, the actualities of present circumstances, and the potentialities of the future are appropriately combined.

It is the purpose of the chapters which follow to aid the reader to increase his perspective concerning the secondary school, to give him some assistance in examining its practices critically and to suggest definite possibilities for strengthening its service to boys and girls and to society. The major portions of this book are devoted to the young people whom the school directly serves and the social ideals in which it must find its ultimate purposes, the various aspects of conventional practice in existing secondary schools; the concrete illustration of possible reorganization of the educational program of the secondary school. These things should presumably be our main concerns. They can, however, be much better understood and appreciated if they are considered after some attention has been given to ways in which the secondary school has come to be what it is. Although the school of today is confronted with many problems which are in a sense very new, its ways of seeking to meet them are much influenced by precedents and traditions some of which have come from a long past.

Indeed, the very problems with which the school is faced will be better appreciated if viewed in the light of the school's older tasks. In presenting at least a brief account of the backgrounds of the American secondary school, the next chapter will, therefore, serve as a fuller introduction to the secondary school of today.

SOME MATERIALS AND ACTIVITIES WHICH WILL BE USEFUL IN THE STUDY OF SECONDARY EDUCATION

It is expected that the reader who seeks to understand the practices of our secondary schools and to develop valid conceptions of their potentialities for improvement will make extensive use of a variety of sources of information and critical evaluation. Fortunately, there are a number of useful books which are concerned directly with the secondary school as an institution. These books differ in many ways, and the reader who expects to make considerable use of any of them will do well to examine several with care in order to make the best possible selection. Some, like *Modern Secondary Education* by Douglass, are very comprehensive, including at least brief mention of a vast miscellany of topics. Some are extremely logical in their formal organization, as in the case of *Principles of Secondary Education* by Inglis. Some are optimistic in outlook, so that, like the book by Cox and Long, they describe the secondary school as if it were already doing as they would like to believe that it should do. Some, like the book on the *American Secondary School* by Koos, are very factual.

Obviously, the selection of books for supplementary use must be made in terms of the individual reader's own needs and tastes, and he should sample them for their flavor and measure their scope, before choosing those which he will plan to use.

Having made a tentative selection, he should examine carefully the books he has chosen to find out what matters are dealt with in them, so that as he goes on with his study he may refer to them as occasion may suggest. (If he does not acquire them as his own permanent possessions, he will find it helpful to make record of their tables of contents, so as to know when and where to look for pertinent materials. This exercise will, incidentally, help to give him a pretty definite notion of the general scope of things ordinarily looked upon as important elements in secondary education.)

General Books on Secondary Education

- Briggs, Thomas H : *Secondary Education*. New York: The Macmillan Co., 1933 578 p.
- Cox, Philip W L , and Long, Forrest E : *Principles of Secondary Education*. New York. D C. Heath & Co., 1932. 620 p.
- Douglass, Aubrey A . *Modern Secondary Education*. Boston: Houghton Mifflin Co , 1938 782 p.
- Draper, Edgar M., and Robert, Alexander C.: *Principles of American Secondary Education*. New York: The Century Co , 1932. 550 p.
- Engelhardt, Fred, and Overn, Alfred Victor. *Secondary Education*. New York: D. Appleton-Century Co , 1937. 623 p.
- Ferriss, Emery N. *Secondary Education in Country and Village*. New York: D. Appleton & Co , 1927. 401 p.
- Inglis, Alexander. *Principles of Secondary Education*. Boston: Houghton Mifflin Co , 1918. 741 p.
- Koos, Leonard V.: *The American Secondary School*. Boston: Ginn & Co., 1927. 755 p
- Lull, Herbert G . *Secondary Education: Orientation and Program*. New York W. W. Norton & Co , 1932 366 p
- Monroe, Paul (Editor) . *Principles of Secondary Education*. New York: The Macmillan Co , 1914 790 p
- Monroe, W. S , and Weber, O : *The High School*. Garden City: Doubleday, Doran & Co , 1929. 511 p.
- Smith, William A . *Secondary Education in the United States*. New York: The Macmillan Co , 1932 429 p.
- Uhl, Willis L : *Principles of Secondary Education*. New York: Silver, Burdett & Co , 1925. 692 p.
- Williams, L. A , and Rice, G A.: *Principles of Secondary Education*. Boston: Ginn & Co , 1927 339 p.

Since it is easily possible, and supposedly desirable, for the reader to make some selection of reading materials for his own use, the bibliographical suggestions in subsequent chapters of this book will not ordinarily specify materials in the books listed here

There are in addition to the books mentioned already a few other publications to which the student may find it profitable to refer frequently The *Sixth Yearbook* of the Department of Superintendence of the National Education Association, "The Development of the High-School Curriculum," 1928, contains a variety of briefly stated materials on many phases of the secondary-school program. George S. Counts, in his monograph, *The Senior High School Curriculum* (published by the University of Chicago Press in 1926), provides in brief compass some clear and discerning criticisms of conventional high-school work.

It will be profitable also to develop the habit of reading certain educational periodicals more or less regularly. There are three magazines in particular, devoted to secondary education, which have attracted many readers. *The School Review* has for many years presented substantial articles, many of which are brief accounts of educational experimentation or quantitative research. In general its materials are more solid than exciting. *The Clearing House* is somewhat more hospitable to all sorts of authors who have all sorts of things to say. If they are not positively stimulating, they are at least entertaining. *The California Journal of Secondary Education* has been increasingly read throughout the country, and, although it deals chiefly with what people are doing and thinking in the secondary schools of the Pacific area, it is for that very reason valuable for persons in other sections of the country. The reader will no doubt have occasion to use also the many other excellent educational periodicals which are usually available in any good university or public library.

The student of secondary education should by no means be limited to what he can learn by reading. Some things he can learn best by visiting schools. If he knows pretty definitely what he wishes to find out about and has made inquiry to identify the particular secondary schools in which he will have the best opportunity to observe at first-hand the thing he wishes to see, he will find some school visits especially stimulating. It will be profitable also for him to talk with educators whose experience, interest, and competence in certain phases of education are perhaps superior to his own. If he has already found out all he can in other ways about the matter with which he is concerned, he is the more likely to get greater return from such discussions. The careful planning of school visits and opportunities for informal conferences with other persons are no less valuable than the careful selection and planning of one's reading.

Perhaps it will not be inappropriate to advise the reader that each of the chapters which follow is intended to be suggestive and introductory in the sense that the reader who gets the most from them will find avenues for the development of his own thinking. Although he will discover in these chapters certain definitely asserted points of view, there is no reason to suppose that the chapters are to be looked upon as in any way full or final answers to the problems of the secondary school. The fact that many of them represent departures from convention suggests that they should be evaluated critically and judiciously. It is on this account particularly that the reader is urged to make much use of materials from other sources, and to look upon his own reflective appraisal of what he has read as being of more importance than what he has read.

Because of these considerations the author has felt some diffidence in suggesting at the end of each chapter some things for the reader to consider further and some things to do, for he would like to leave the reader free to consider what he would like to consider and free to do what he would like to do. If the reader finds the latter course easy and preferable, he is urged to

follow his own inclinations. Those who wish at least to consider various possibilities for further study and activity will see that among the problems and projects which are later suggested for consideration, there are some which are relatively simple and somewhat academic in character and others which are more complex and substantial. In other words, some of them could be reasonably well handled while sitting at a library table, while others would require some months of serious and persistent effort. One means by which the reader may assess the growth of his own mastery of the problems of the secondary school is the extent to which he finds himself disposed and able to undertake and carry out long-term projects for the solution of some of the secondary school's problems

BACKGROUNDS AND ORIGINS

THE secondary school of today is like a buxom child reared in the household of its cautious grandparents. Physically, it has the appearance of youth and vitality. Its visions and its energies are stimulated by the problems of the present. But many of its fundamental modes of thought and action are legacies from the past. Its life is inevitably a mixture of tradition and novelty. Some of the school's most dismal futilities result from the unwitting failure of educators to capitalize the school's traditions or from their wilful prolongation of unreasonable or outworn scholastic customs. On the other hand, its best achievements are sustained by judicious awareness of the influence and worth of the school's traditions and willingness to foster them or to discard them according to their present merit or unfitness. It follows, therefore, that one need not be an antiquarian in order to be concerned with the ancestry of the secondary school. One can scarcely hope to understand it or to arrive at any dependable judgments about its present worth and future prospects unless one takes into account some of its past achievements and shortcomings.

In one sense the majority of American high schools have no institutional ancestry. Many American communities first established their secondary schools within the lifetime of their present adult inhabitants. These schools are pioneer institutions in pioneer communities. Consequently some of them have partially escaped the influence of traditions already established in older settlements, but by and large the developmental trends of American secondary schools in various sections of the country are fundamentally similar. This similarity is due partly to special attempts in the past to make the schools uniform and partly to the tendency of educators and their powerful patrons to imitate their forerunners. Although many schools have not actually passed through the several stages undergone by secondary education in the older portions of our country, they now share its inheritance and are built upon its foundations and after its patterns.

Three American secondary schools. Reduced to very simple terms, the story of the American secondary school is the story of the Latin grammar school, the academy, and the public high school; and their respective heydays are the colonial period, the nineteenth century, and the twentieth century. The rise of each of these schools produced certain outstanding contributions which have persisted more or less in our schools of today. Briefly, the Latin grammar school was notable for the following characteristics: Its pupils were a selected group whose circumstances and prospects were somewhat privileged; its purpose was preparation for college and the fostering of religious piety; its curriculum was classical and linguistic; its educational theory was disciplinary and its instructional methods largely memoriter; its teachers were frequently temporary and, at least in their own opinions, sadly underpaid; the general atmosphere of the school was ordinarily dreary; and it was legally established with public support and control. The academy, in contrast with its colonial predecessor, shaped the traditions of secondary education in such directions as these: Increased numbers and heterogeneity of pupils, a greatly expanded and diversified curriculum; the dual purpose of preparation for college and for the affairs of everyday life, with major emphasis on the latter; an eclectic educational theory which stressed the value of "useful" knowledge and instruction to produce understanding rather than verbal memorization; increased emphasis upon the importance of special preparation for teachers; the development of a pleasant school atmosphere and the inauguration of student activities as integral parts of the school program; the loss of support from public funds and the inauguration of private or semi-public control.

The early public high school produced comparatively few changes. It tended chiefly to consolidate and stabilize the gains made by its predecessors. Undoubtedly its major early contributions were the establishment, in popular opinion and in statutory and judicial decisions, of the secondary school as a definite part of the public school system of the nation. Next in importance was the marked and continual increase in the size and scope of the secondary-school population. But other trends are not so clear. Nominally at least there has been increased emphasis upon the purpose of preparing youth for the common activities of everyday life, but the objectives have been confused. The curriculum of the high school was at first restricted, but has more

recently been expanding in lively fashion. The early high school inherited a number of conflicting educational theories and modes of instruction, and it has been somewhat embarrassed in its effort to use all of them harmoniously. Its teachers have had more special preparation than those of any prior American secondary school, but they have been neither very highly praised nor generously repaid for their attempts to perpetuate their own academic traditions and to satisfy the needs and expectations of their patrons.

These brief generalizations can have little meaning unless they are supplemented and substantiated by facts which suggest the character and flavor of our earlier American schools.

COLONIAL CONTRIBUTIONS TO SECONDARY-SCHOOL TRADITION

The secondary school's colonial traditions stem chiefly from New England, particularly Massachusetts. The reasons are several. Not only were the New England colonists on the ground early; they happened to be much interested in education. A large proportion of the colonial leaders in Massachusetts were themselves graduates of English universities. Their own personal experience and their civic purposes made them more than willing to establish schools early and foster them zealously. As early and superior models these schools were widely copied in other sections of the country. This extended influence was increased by the fact that persons who had attended New England schools and colleges later became leaders in the encouragement and direction of schools in other places. Thus the patterns of New England's schools, and to some extent her educational ideals, entered into the development of the contemporary school.

The Latin grammar school. The colonial Latin grammar school was not an innovation. It was an importation from England. Brown has shown that the curriculum of the Boston Latin School in 1789 was almost identical with that used in Winchester, England, about 1600.² Our first American secondary school, the Boston Public Latin School, was established in 1635 chiefly because the leaders of the colonial

² Elmer E. Brown. *The Making of Our Middle Schools*. New York: Longmans, Green & Co., 1902. 547 p. Or see Alexander J. Inglis. *The Rise of the High School in Massachusetts*. (Contributions to Education, no. 45.) New York: Teachers College, Columbia University, 1911, pp. 2-3.

theocracy wished to perpetuate their ideals and their own type of leadership. Harvard College seemed to them to promise a supply of properly orthodox ministers, if they could be assured of enough youths who were qualified to undertake college training. So the Latin grammar school was inaugurated as a college-preparatory agency, and its borrowed pattern was soon to be duplicated many times in larger towns throughout New England.

A selective institution. We have neither exact nor very dependable records to show what classes and proportions of young people were members of early Latin grammar schools. School administration and organization, as it is known to us today, was then meager and haphazard. Schools were ungraded, unsystematized. Pupil groups were small and were conducted almost continuously in the presence of their own teacher, who might sometimes have one or two assistants, or "ushers." Such order as there was usually came as a personal conquest on the part of the teacher, so that there was not much occasion for complex and uniform organization and record-keeping, hence, our lack of knowledge. And the absence of data indicates in itself, perhaps, that there was no great concern about how many young people were enrolled in the colonial grammar school.

We may safely infer, however, from the character of its purposes and its program of studies that it was intended to be aristocratic rather than popular. Its privileges were sometimes open to those with little means, for the teacher's salary came ordinarily from public funds, and some children were allowed to be in school even though their parents could not pay the "fire money" which helped to keep the school-house warm. We must remember, furthermore, that the elementary school, which was designated as the common school, gave instruction in the reading and writing and ciphering needed by the common man or woman. Elementary literacy was enough to enable ordinary folk to read the Scriptures and to mind their personal and civic *p*'s and *q*'s. And the classical scholarship of the grammar school, such as it was, belonged to those whose abilities, ambitions, or prospects were distinctly exceptional. If in terms of the educational conceptions and opportunities of our own times these colonial practices and beliefs seem unworthy or unwise, it should be remembered that in their attempts to make mandatory a publicly provided elementary schooling for all children the colonists were taking a step which had never been taken

before. They could scarcely be expected to have attempted to provide anything like universal opportunities on the secondary-school level. But they made some remarkably strong advances in that direction.

The extension of the Latin grammar school. In 1647 the General Court of Massachusetts Bay Colony, paying its disrespects to the "one chief project of that old deluder, Satan, to keep men from a knowledge of the Scriptures," and intending that "Learning may not be buried in the graves of our fore-fathers in Church and Commonwealth," established a far-reaching mandate. The "old deluder law," which required communities of one hundred or more families to maintain Latin grammar schools, in its provisions and its actual results foreshadowed some of the strengths and weaknesses of contemporary American secondary education. It promoted the conception that secondary education is essential for the general welfare, that it should be supported from public funds, and that it is properly subject to public control. These precedents are most significant, and educators rightly cherish them. But there were also unfortunate or precarious elements in the situation.

Although the secondary school was public, it was local. The traditions of New England polity and the economic rigors of frontier communities inevitably induced much local variation in the extent and quality of its secondary education. Small villages lacked the resources necessary for secondary schools, and many larger communities, legally presumed to have adequate resources, were unwilling to submit to the law's requirement. Some towns found it cheaper to pay fines than to maintain schools. Others more craftily sought to escape penalty by keeping schools open only while the court was in session or by maintaining meager schools which only nominally met legal requirements. These difficulties were not solely economic in origin. Many of the inhabitants of rural villages had fled to them to be free from the authority and influence of the Puritan leaders who had established the law. Men who had taken active measures to avoid the irritations and restraints motivated by Puritan ideals could not zealously foster an institution intended chiefly to preserve these ideals. In its very beginnings the American secondary school embodied both the ideal of educational opportunities for all youth, as an essential contribution to the general welfare, and the practical necessity of subsisting upon the material resources and the favor of its local patrons.

Under conditions such as these the colonial secondary school suffered many vicissitudes. That it should, indeed, have persisted at all amply reveals strong faith in the value of education and willingness to make great sacrifices for it. Before 1700, when the colonial Latin grammar school had probably reached its highest development, possibly as many as forty New England communities had establishments patterned after the Boston Latin School (1635). Dutch pioneers in New Amsterdam made few attempts to develop public Latin grammar schools, and the subsequent efforts of the English who supplanted them were no more successful in creating schools which produced any significant colonial tradition. Pennsylvania, however, was more successful than most colonies outside of New England in developing in the "William Penn Charter School" some very influential precedents.

The selective character of our colonial secondary schools is attested not merely by the relatively small numbers of schools available. As we shall note presently, the nature of its educational program was appropriate to this selectivity. But it would probably be very inaccurate to assume that the small number of schools and the nature of the program were major causes of this aristocratic selection of pupils. Even if schools had been placed within easy reach of all youth and even if their purpose and curricula had been intentionally planned to serve the needs of young people generally, it is doubtful whether many young people could have attended them. In the first place, the colonists were not wealthy. With the labor of their own hands they subdued the wilderness, supplied themselves with personal necessities, and built the material foundations for their family life. Furthermore, in comparison with present-day families, colonial families were large. With so much work to be done, and with proportionately few adults to do it, the boys and girls in the typical family could not be spared from the necessity of sharing in labors for subsistence and security.² Obviously, therefore, although the secondary-school population of the colonies was very select, the selection was by no means purely academic and institutional. It was largely a result of the prevailing immaturity of the general population and of the economic conditions of the times.

² Educators who criticize the Latin grammar school for its selective character seem frequently to overlook the importance of these social and economic influences. George S. Counts (*Secondary Education and Industrialism*, Cambridge: Harvard University Press, 1929, 70 p.), presents them cogently.

Purposes. If the actual statements of their sponsors are to be taken at their face value, these early schools were fostered from pious or religious motives. The "old deluder law" cites the necessity of enabling men to understand the Scriptures. In 1645 it was recorded that "... the Inhabitantes of Roxburie, in consideration of their relligious care of posteritie, have taken into consideration how necessarie the education of theire children in Literature will be to fitt them for public service, both to Church and Commonwealthe, in succeeding ages."³ This concern for the development of religious piety is reflected also in the very common practice of making clergymen responsible for the inspection and supervision of instruction and for determining the qualifications of persons seeking to become schoolmasters. The schools of New England were by no means peculiar in being intended to promote piety and to provide early training for prospective college students and clergymen. Mulhern's study of the early secondary schools in Pennsylvania amply demonstrates similar intentions and influences on the part of the Quakers and other sects which were notable for their successful efforts to foster schools.⁴

Commentators on the colonial grammar school commonly stress its college-preparatory purpose, although very often this purpose was not explicitly stated by the school's sponsors or contemporaries. But, if it was seldom emphasized in words, it was attested in practice. The selective character of the school population and the linguistic and classical character of its curriculum were indicative of its college-preparatory quality. In terms of its outcomes, however, the Latin grammar school commonly failed to achieve this purpose. It is frequently asserted in our own day that it was all very well in bygone days to employ certain subjects of instruction "because the majority of pupils were going to college." Regardless of the merits of certain subjects, it is significant that the majority of the early Latin grammar schools were not sending pupils to college. In Pennsylvania even the grammar-school pupils in Philadelphia seldom entered college.⁵ A list of the graduates of Harvard College during the period from 1644 to

³ A quotation from Dillaway's *History of the Grammar School in Roxburie* in Emit Duncan Grizzell *Origin and Development of the High School in New England Before 1865* New York: The Macmillan Co., 1923, p. 10.

⁴ James Mulhern *A History of Secondary Education in Pennsylvania* Philadelphia Published by the Author 1933. 714 p., especially pp 59 ff.

⁵ *Ibid.*

1700 shows that the majority of its students came from schools in Cambridge, Boston, Charlestown, and Roxbury. During this entire period some towns which are reported to have had preparatory schools apparently sent no students at all to the college.⁶ About the subsequent careers of the pupils who finished their schooling in the more remote pseudo-preparatory schools there is no record, nor do we know whether their academic training was well used for other than its intended purpose. We do know, however, that the Boston Latin School during a long career has graduated large numbers of young men who not only have gone to college, but have also achieved notable distinction. Whether these noteworthy attainments have come because of the Latin school or in spite of it, they ought certainly to be taken into account in any attempt to assess the merit of the Latin grammar school.⁷

The curriculum. Faithfully imitating European precedents, the curriculum of the colonial secondary school at its worst was pedantically linguistic and at its best predominantly classical. Historically, academic devotion to the classics stemmed from humanism, which in the fifteenth century broke with mediaeval traditions of scholastic theology and dignified the affairs of men. Derogating emphasis on the supernatural, the humanists had gloried in the rediscovery of classical culture and in classical literature for its portrayal of Greek and Roman civilizations. Eventually the humanistic revival influenced the schools, and the pedagogues, even though they were probably not fully aware of the spirit of humanism, became accustomed to present standardized selections from its "subject matter." Consequently, the boys of colonial Boston, Hartford, and Philadelphia were made to study selections from Corderius, Eutropius, Caesar, Cicero, Virgil, Horace, and Homer, together with the formal intricacies of Latin and Greek grammar and stories from the Scriptures and the "history of the heathen Gods." In view of the colonial preoccupation with theology and the Puritan belief that man's chief purpose in this world is to glorify God and prepare for the next world, it may seem somewhat ironical that the humane literature of the earlier revolt against eccle-

⁶ W. H. Small *Early New England Schools* Boston: Ginn & Co., 1914, p. 31.

⁷ See "Biographical Sketches of Some Famous Pupils of the Boston Latin School," chapter VI of Pauline Holmes *A Tercentenary History of the Boston Public Latin School 1635-1935* (Harvard Studies in Education, vol. 25) Cambridge: Harvard University Press, 1935, pp. 125-231.

siaistical authority should have become the pabulum of the colonial secondary school.

The effort to press the pagan classics into service for the production of Christian piety must not, however, be interpreted as nonsensical. The classical curriculum had, to be sure, very little apparent connection with the vicissitudes of the colonial frontier. And if the school-boys had really begun to understand and accept the views presented in the classics they studied, they might have disappointed their zealous benefactors. But colonial educational leaders, particularly those in New England, did not intend to adapt the curriculum to the vicissitudes of the frontier. They sought rather to perpetuate English cultural traditions and to transcend the narrow difficulties which directly beset them. They were not concerned either with the spirit or the ideology of the classics. There was little danger that youthful minds would be harmed by pagan ideas. The growth of unorthodox ideas was effectively inhibited by the dominant ideals and scholastic practices of that day.

Educational theories and modes of instruction. Colonial educators were not encumbered with an educational philosophy peculiarly their own or detached from the prevailing beliefs of their sponsors and patrons. The original depravity of children had to be transformed into piety through forthright and rigorous discipline. It was necessary to "break the child's will," to exact from him unquestioning obedience to adult authority. Laborious effort was intrinsically virtuous. Diligent subjection to established rule was a safe apprenticeship even for those who were to develop powers of leadership. Beliefs of this sort inevitably encouraged a tendency to which pedagogy is very susceptible. They lent plausibility to emphasis upon tedious drill and verbalistic, memoriter learning. Schoolmasters easily found excuse for making their pupils toil through the long days, memorizing words, fussing about linguistic niceties, translating good Latin and Greek into queer English, and translating fair English into worse Latin and Greek. Undoubtedly a few teachers, like Cheever and Lovell in the Boston Latin School or Pastorius in Philadelphia, were aware of the spirit and the ideas so richly contained in the classics and tried to make them the possession of their pupils. But almost universally the Latin grammar school emphasized the disciplinary processes and objectives which the classics could be made to serve. To those who esteem the

classics for their power to illuminate and ennoble humanity this narrow regimen of discipline may seem to be a specious and unwarranted prostitution. Be that as it may. The disciplinary emphasis was caused partly by the fact that the school had uncritically perpetuated a body of subject matter the spirit and essential content of which were no longer in harmony with the ideals of its scholastic guardians. Had they been fully aware of this fundamental conflict — and apparently few of them were — there would probably have been little effort to adopt new subject matter. As a matter of fact, from the standpoint of the scholastic disciplinarians, there were certain advantages in using subject matter the spirit and content of which were quite foreign to their contemporary culture. Its irrelevant character served to increase the rigor of studying it and to extenuate the grammar-grinding which was the schoolmaster's delight. Added to these dubious advantages was the fact that even in the colonial period the classical languages were still directly useful in giving access to some of the world's best literature. That is, they were potentially useful. Clergymen and some members of various learned professions could credit the secondary school with having directed the beginnings of fluent reading ability in the classical tongues. Others, who were the large majority, had at least the prestige which was the concomitant of membership in a very selective school and the satisfaction of having demonstrated their ability to survive.

Teachers. Perhaps more than its successors in later periods of American history, the character of the colonial secondary school was influenced by the kinds of persons who served it as teachers. The unsettled character of the colonial community, the lack of local scholastic tradition, its meager and precarious financial support, its small size, and a host of kindred influences made the school very dependent upon the persons who conducted it. Concerning their qualifications for teaching we know very little except what may be inferred from other facts. Local selectmen frequently had difficulty in obtaining teachers, and those whom they employed seldom remained long in one place. Teaching was then, as it has often been since, a way of getting a living while waiting for a better one. Young ministerial students commonly used teaching in this way and sometimes continued it permanently as a side-line. This was not primarily owing to the opportunism of young pastors. It was partially a result of the general requirement that a

teacher should at least be pious, discreet, and safely orthodox. Candidates for positions as teachers could not be appointed unless one or more local ministers had certified their piety and scholarship. Although the schoolmaster usually had a dwelling and some land supplied by the town, his salary was meager and irregular. Even men who remained in the work for many years and who were esteemed as good teachers were seldom generously rewarded for their work or for their pleas for funds. In 1648 the citizens of Cambridge, recognizing their schoolmaster's success and his extreme poverty, agreed "that there should be sold land of the common for the gratifying of Mr. Corlett for his pains in keeping a school in the town, the sum of £10, if it can be attained, provided it shall not prejudice the cow common."⁸

The services the teacher had to perform were not of the sort to dignify the profession of teaching. Schoolmasters were very commonly expected to cut firewood, dig graves, ring the church bell, act as court messenger and assist in training the church choir. The restrictions hedging his life and the popular conception of the nature of his service are suggested by the articles of indenture of one, Eldridge, an apprentice-teacher in Philadelphia's notable Latin school in 1756:

Witnesseth, That Samuel Eldridge son of Obadiah Eldridge of the City of Philadelphia Hath put himself, by these Presents, by & with the consent of his said Father, doth voluntarily, and of his free Will and accord, put himself apprentice to the overseers of the Publick School, founded by Charter in the Town & County of Philadelphia in Pennsylvania to learn the Art, Trade and Mystery of a School Master after the manner of an Apprentice . . . for, and during, and until the full End and Term of four years and five months next ensuing. During all this Term the said Apprentice his said Masters faithfully shall serve, their Secrets keep, their lawful commands everywhere readily obey. He shall do no damage to his said Masters nor see it to be done by others . . . He shall not contract matrimony within the said term. At Cards dice, or any other unlawful Game, he shall not play, whereby the said Masters may have Damage . He shall not absent himself Day or Night from his said Masters' Service without their Leave; nor haunt Ale houses, Taverns, or Playhouses⁹

If the restrictions imposed upon teachers by early Philadelphians seem unduly rigorous, it should be remembered that no city in colonial

⁸ Edwin Grant Dexter *A History of Education in the United States* New York The Macmillan Co., 1906, p. 31

⁹ Mulhern *Op cit*, p. 50

America had a better reputation for tolerance and enlightenment. Nevertheless, there is ample warrant for the belief that the colonial teacher's tasks, rewards, and popular esteem were not of the sort which would ordinarily attract competent and self-respecting men. To what extent these precedents have actually retarded the improvement of the profession of teaching in America is not precisely discernible, but they have surely not helped very much.

Extra-curricular activities and community relationships. The colonial Latin school's underlying rationale leads one to expect that what we now take for granted in the way of school social life and student activities was not approved or encouraged. The only accepted deviation from the regular routine of studies was the "visitation," with its considerable preparations. In Boston visiting days were spectacular. Being amply forewarned, the teacher would diligently drill each pupil in the particular performances which would be required of him. The formal exercises were attended by the governor and his lieutenant, members of the council and the general court, overseers of the poor, selectmen, ministers, doctors, lawyers, and other prominent citizens. For their edification the pupils demonstrated their mastery of lessons which they had carefully rehearsed. "After the visitation, the gentlemen and the schoolmasters had a dinner at the expense of the town, with the understanding that they pay for their own liquor."¹⁰ Aside from the not infrequent demonstrations of the master's adroitness in plying the birch rod, there were few opportunities for relief from scholastic drudgery. In fact, the ceremonial of corporal punishment was not extra-curricular. It was an accepted necessity in good instruction, a part of the day's work.

The school was not expected to provide entertainment for the community. It sponsored no clubs and was never accused of overemphasis on athletics. The school building was frequently used for church services, choir rehearsals, court martials, and, in Boston at least, for the sale of liquor, but it is doubtful whether any of these activities were recognized as direct responsibilities of the school.¹¹

Contemporary criticisms and divergent tendencies. The Latin grammar school flourished best where and when the church and its

¹⁰ Pauline Holmes *A Tercentenary History of the Boston Public Latin School 1635-1935* (Harvard Studies in Education, vol. 25) Cambridge: Harvard University Press, 1935, p. 61

¹¹ *Ibid.*, pp. 502 ff

leaders dominated community life. During the seventeenth century there was little criticism of the educational ideals and practices embodied in it. Early opposition to the enforcement of the "old deluder law" arose because the law was ahead of its times. Had people been willing and able to support public secondary schools of any kind, they probably would have preferred schools of the Latin grammar type. In Pennsylvania there had been from the beginning a strong desire among some influential leaders for a different sort of education. In specifying the kind of education he would have for his own children William Penn commended "the useful parts of mathematics, as building houses, or ships, measuring, surveying, dialing, navigation, but agriculture especially is my eye. Let my children be husbandmen and housewives; it is industrious, healthy, honest, and of good example."¹² Penn's ideas were prophetic of what was to come about a century later, but they were not to be realized in the education of his own children.

In the William Penn Charter School (founded 1689) there were to be two separate departments, a Latin school and an English school. In the Latin school, moreover, it was stipulated that the boys should read history in English. But as the schoolmasters were loath to follow the admonition, the English school languished. The salary of its master was one-third that of the master of the Latin school,¹³ yet despite its prestige, the Latin school was often vigorously criticized, sometimes by its own teachers. One of them was so disturbed that he resigned, apparently because of these objections:

The employing of so large a part of your funds upon the Latin School and the indiscriminate receiving into it all Sorts of Boys without regard to Capacity or Behaviour, appears to me a Measure extremely imprudent & such as has made me strongly doubtful whether I am not a party to glaring misappropriation of Money devoted to charitable uses

You use Care & Caution in admitting poor children to learn English which ought to be taught to all, but little or none in admitting Latin scholars which is a Science that none ought to learn but Boys of Capacity. I shall not altogether censure an application to the Languages in such Boys as have either extraordinary Capacities or whose Calling in Life may more particular require it, or such as being intended for no calling may saunter away their Time in school with less injury than anywhere else, those might employ one Master, sometimes furnish us with Doctors & Lawyers, Criticks & Commentators, fathom all the depths of

¹² Mulhern *Op cit*, p 25

¹³ *Ibid*, p 48

ancient Folly & pore on musty Manuscripts & defaced Inscriptions, till they spoil both Eyes and Understanding

But the generality of our Youth have no great relish for such learned Trifles, but all are intended by the wise Author of Nature to act a part in social life & generally allotted by their Parents for Merchantile or Mechanick Employments, the puzzling Youth indiscriminately with uncouth Terms and intricate distinctions of dead Languages of little importance in their use & essentially different from their native Tongues, is the grossest absurdity that ever was practiced & has contributed more to promote Ignorance Lewdness & Profanity in our Youth than anything I know besides ¹⁴

These statements seem to demonstrate, in ways perhaps not intended by their author, some need for better training in English.

In addition to the sporadic strictures of persons closely concerned with the schools, there were other criticisms of the Latin school. Democratic ideals, inspired chiefly by French liberalism and stimulated by the increasing economic independence of the colonies, fostered an optimistic demand for education looking forward to independent nationality and the foundation of republican institutions. Believing in the perfectibility of social institutions and in the necessity of universal education to insure an enlightened citizenry, many leaders proposed new plans for the schools.¹⁵ These men viewed education with broad perspective (which may be the reason for the failure of schoolmasters to be influenced by them) and were concerned not with its effectiveness in improving the personal advantages of individual pupils but with its potency in producing national consciousness and cultural solidarity. In contrast with the Puritans, they sought not to perpetuate rigid and strait-laced tradition, but to cultivate a fluid civic intelligence which would promote the continuous revision of flexible institutions. Quite naturally, then, they urged the rather general abandonment of the "transatlantic curriculum" and the introduction of more modern subjects. History they commended unanimously as a study which should illuminate and emphasize the character of social institutions and give wisdom to those who should undertake jointly to steer and accelerate social evolution. But the

¹⁴ Mulhern *Op cit*, pp 42-44

¹⁵ Allen Oscar Hansen (*Liberalism and American Education in the Eighteenth Century*, New York The Macmillan Co, 1926, 317 p) describes and interprets the proposals of Benjamin Rush, Robert Coram, James Sullivan, Nathaniel Chipman, Du Pont de Nemours, Samuel Knox, and other early liberals

schools of the day apparently did not take kindly to such revolutionary proposals, or if they did they lacked power to make them effective

Perhaps one reason for the failure of these nationalistic ideals to influence the program of the schools was the difficulty of formulating quickly an educational program based upon them. The liberal critics of the schools affirmed the need for instruction which should make men wise in the direction of their contemporary civic affairs, they disparaged the remote and antique character of the usual school subjects, they suggested somewhat vaguely that subjects studied should be related to "present circumstances in America," but when they tried to outline the studies which should be introduced into the schools their inspiration faltered

If zealous laymen were unable to outline definitely the changes which revolutionary social principles implied for the schools, the teachers were apparently no more competent. In the midst of a turmoil of ideas and ideals soon to burst forth into political revolution and to shake the foundations of American life into new patterns, the schoolmasters of the eighteenth century were unmoved. Steadfastly they clung to their accustomed academic ceremonials. But even if the teacher could not discard his curriculum, the public could, and did, discard the school. Long before the overt events of the revolution, many grammar schools had been dissolved, and before the end of the century virtually all of these Latin schools were extinct. The colonial secondary school which had stimulated the hopes of many growing communities had not only become so antiquated and unwanted that it died of its deprivations; it was so weak or so vastly unsuited to its cultural environment that it died without heirs. For many years the majority of communities which had experienced the difficulties and the benefits of supporting Latin grammar schools made no effective effort to continue the practice.

The character of its short and unhappy existence is enough to suggest that the colonial Latin school lacked the health and vigor of a vital organism growing in a suitable environment. Its death came from no sudden accident. It was rather a gradual process of decline. Educational coroners cite several contributing diseases and weaknesses. Some assert that the Latin grammar school in America was already an antiquated and somewhat lifeless institution before the Puritan migrants sought to use it to perpetuate their pious traditions

in America. Others emphasize the lack of harmony between the ideals of the leaders of the Puritan church-and-state and the goals which developed rather naturally in the lusty growth of an indigenous culture. Undoubtedly the "old deluder law" was ahead of its time, and it may be that the Latin school declined not so much for its intrinsic weaknesses as for the invalidity of its means of support. The petty pedantry of the school's instruction, its concern with linguistic trifles and its neglect of the broader import of its subjects of instruction did not help to make it a popular institution. Closely related to the pedantry was the general character of the teaching personnel. By and large, the teacher's work and rewards were neither challenging nor attractive to persons of superior competence. Although these handicaps are not solely to blame for the decline and dissolution of the Latin grammar school, and although it is not certain that these weaknesses have become substantial elements in the traditions of American secondary education, they probably deserve to be pondered.

The unhappy decline of the Latin school in the midst of growing nationalism and the almost complete lack of interest in secondary education during the several decades following the revolution are not pleasant subjects for reflection on the part of those who would like to believe that the American people are characteristically confident that education is a good thing and that schools should always receive generous support from the public treasury. They do not, on the other hand, demonstrate that the American people do not believe in education and do not willingly support it. It may very well be that the American people are extraordinarily faithful and generous in their support of schools, but that they are not gullible enough to support indiscriminately any kind of academic business schoolmasters seek to perpetuate. Although they showed that they would no longer support the kind of education offered in the Latin grammar school, they were later to prove that they would appreciate and support schools better attuned to the spirit of their times.

THE EDUCATIONAL REVIVAL AND THE RISE OF THE ACADEMY

In contrast with the dismal futility and consequent neglect of the Latin school both before and after the war for political independence,

the ascendancy of the academy marks a happy period in American education. The middle of the nineteenth century may fairly be called the golden age of American education. The abortive effort of the early Puritans to make secondary schools publicly supported agencies for the preservation of civic theocracy and personal piety had been conscientiously forgotten, but the secondary school was soon to thrive as a private venture dedicated to the rise of the common man and at least partially flavored with secular purposes. The nineteenth-century academy was not, to be sure, a vast institution which sought to include all young people in its membership, a fact which led some latter-day educators to see in it little merit. But judged in the light of its times, in comparison with the sorry fortunes of its antecedents and in relation to the subsequent developments for which it provided support, direction, and impetus, the academy was an admirable school.

More than at any time before or since, the secondary schools of the nineteenth century were diverse and sensitive to the changing beliefs and wishes of their patrons. They could not help being so. If they were not actually the personal enterprises of individuals who could get a living only by catering to the desires of their patrons, the schools were frequently sponsored by companies whose stock was widely dispersed in small amounts among the parents of school children. Even in those schools which were supported chiefly through the generous endowments of a few individuals, the nature of the educational program was naturally influenced by the whims or biases of the donors. Consequently, there were all sorts of schools, and any attempt to peg them down within the narrow limits of some strict pattern or even to deal with them briefly necessarily distorts them somewhat. Even though the highlights of these schools appear to be kaleidoscopic, it should be remembered that a full view would show many minor facets. Sensitivity to immediate social demand and consequent diversity and change were dominant characteristics of this period.

The extension of the academy. Because they were informal and tentative, the beginnings of the trend toward the academy are not suitable for statistical treatment. Even in the eighteenth century, particularly in Philadelphia and other large and progressive cities, many schools were conducted as commercial enterprises by transient teachers. These private ventures sometimes involved little more than

the offering of lessons in navigation, embroidery, dancing, or French. In other instances a competent teacher and his assistants would provide a comprehensive course of instruction for substantial numbers of pupils. Mulhern shows that even during the colonial period various sorts of private instruction were frequently advertised in the hope of attracting prosperous patrons¹⁶ But these sporadic enterprises are seldom included in statistical records, and when numbers are reported they usually have reference to schools for which charter, incorporation, or endowed foundation provided some degree of permanence. Of academies of this sort New England was first in the field with a rather generous supply, although even in Massachusetts it was not until after 1825, about fifty years after their beginning, that they became very common. In New York and Pennsylvania, where the Latin grammar school had been less influential, academies increased more rapidly, and by 1830 each of these three states had about sixty incorporated academies. They grew rapidly and steadily thereafter. In 1850, when the academy was at the height of its prestige, Massachusetts had at least 400 institutions; in New York over 160 were recognized by the regents; and in Pennsylvania there were almost as many chartered academies, and, in addition, probably as many "select" or private academies¹⁷

We have little evidence of the numbers of young people enrolled in them. Official reports show that during the twenty-four years before 1850 the number of academies reporting to the New York State Regents rose from 34 to 166, while their total enrollments increased¹⁸ from 2446 to 15,477. In general the academy had the reputation of being a bourgeois institution. Although its resources were sometimes increased by grants of land from state or commonwealth, support came chiefly from nominal but numerous subscriptions from patrons and from fees for tuition. These arrangements were enough to limit enrollments chiefly to children from the "better classes." In comparison with the colonial Latin school, the academy was a very popular institution. If it seems, however, in contrast to the contemporary public high school, to have been more snobbish or exclusive than it should have been, one must in fairness point out that it mirrored the

¹⁶ *Op cit*, chapter IV

¹⁷ Walter John Gifford, *Historical Development of the New York State High School System* Albany, N Y J. B. Lyon Co., Printers, 1922, p. 18, and Mulhern *Op cit*, pp. 250 ff

¹⁸ Gifford *Op cit*, p. 18.

social distinctions approved by its patrons. The common man was rapidly gaining political power, and recognition of his political and economic enfranchisement was soon to be symbolized in the general establishment of free public high schools. But the academy, which ministered chiefly to the demands of the prosperous middle class, was a semi-public school, a notable halfway point in the long march toward free, public secondary education.

One development which we now accept quite complacently was a notable contribution of the academy. Acting on the assumption that females are profitably educable, it accepted girls as pupils. Although this scholastic innovation was influenced by the general trend toward social liberation of women, it was directly stimulated by the penury of the schoolmasters. Teachers whose incomes depended directly upon the numbers of their pupils found it easy to believe that the feminine half of the population ought to receive the benefits of schooling beyond the elementary level. They took pains to assure parents of their cautious supervision of pupils' morality and invited young ladies to share the privilege of education. The young ladies seemed to be well suited to the academic environment. Many contemporary observers declared that women had thus demonstrated their intellectual equality with men.

The purposes of the academy. It is customary to assert that, in contrast with the Latin grammar school, which prepared boys for college and drilled piety into them, the academy was intended to prepare young people for life. Sponsors and apologists for the academy spoke frequently of their concern for "the real business of living." They were doubtless protesting against the persistent scholastic tendency to mummify the classical tradition, and advocating an education which would not be so remote from the meanings and urgencies of contemporary life. But it is hardly fair and certainly inaccurate to suggest that the educational objectives of the academy were distinctively related to the real business of living and that the Latin grammar school had ignored this aim. As a matter of fact the Latin grammar school, during its earlier years at least, was the agency through which young boys were to be prepared to assume what the Puritan leaders believed to be the most urgent business of life. The sort of community life which they cherished was not, to be sure, the life that their nineteenth-century successors esteemed. The Puritan ideal required the

presence of a few learned and godly leaders, men for whom a college education was essential. To suggest that their preparation for college in the Latin grammar school was anything other than an intentional and appropriate preparation for life in the Puritan community is to play with words and to take liberties with the facts. That the Latin grammar school rather generally failed to achieve these aims is perhaps as much a criticism of Puritan ideals as it is evidence of the weakness of the school itself, but that is another story.

Possibly in their advocacy of a preparation for life the friends of the academy were testifying chiefly to their dissatisfaction with scholastic traditions in America and their inability to see clearly what they wished to have in place of it. They apparently had no definite educational philosophy. In a country whose inhabitants were hastily marching without direction beyond that which springs from optimism, without fear of doom or a sense of destiny, without such traditions as they could easily root out, a well-defined educational philosophy would have been anachronistic. Rather than a purposeful and well-ordered rationale to direct their efforts, the schools of the period enjoyed a cheerful and impulsive opportunism. If they had heard the urgent plea of republican philosophers who insisted upon the civic possession of common understandings as the essential foundation and vital preservation of representative government and a healthy society, they accepted no mandate for the school. Republican institutions could, and doubtless would, become better and stronger without any particular attempt to make them so. If religionists encouraged the school as a stimulus to godliness or a restraint in morality, sectarianism weakened and confused what had been the strong, clear voice of religious authority. Religious people would still be permitted to make large financial sacrifices in support of schools, but the religious motive should no longer dominate the school. If some folk hoped the school would provide the way through which youngsters would rise to better fame and fortune, their desires only partially influenced the program of the school, for young people needed only to be ambitious in order to get ahead in the world. Since most of the fundamentals of American life were bound to be wholesome and rather praiseworthy, without any aid from education, the school was free to indulge those who hoped that a few superficial "accomplishments" would add the final flourish to their own natural perfection, and it did so. But a bourgeois culture

which fed lustily upon the material resources and achievements of an America on the march would not take seriously even the cultivation of the personal attainments which sometimes serve as labels for the educated man. It probably had not occurred to Americans to say of themselves, "We don't know where we're going, but we're on our way." They were too busy going even to make hasty diagnosis of the fact, much less to discern its ultimate direction. The academy was also somewhat confused. It was guided by no well-defined philosophy. It had no dominant motive, no all-embracing goal. But it reflected happily the zest and vitality of its times.

It must be remembered that what was true of the academy in general did not apply in all instances. Certain schools, a small minority in the early years and a much larger but diminishing majority in the days of the academy's decline, devoted themselves solely to the traditional type of preparation for college. Others emphasized vocational training. Some, particularly mercenary ventures in large cities, undertook chiefly to produce "ornamental" accomplishments in dilettantes who desired embellishment. But in its common tendencies as well as its exceptional deviations the academy was largely influenced by the immediate demands of its clientèle.

Curricula. The academy's program of studies was a mosaic compounded of many colors and materials. Its general pattern was innocent of conventional or preconceived design. But what it lacked of internal harmony was at least mitigated by the fidelity with which the curriculum reflected the contemporary development of various fields of knowledge and presented this knowledge to the young layman with a minimum of academic fuss and feathers. Although "useful" subjects were preferred, utility was interpreted wisely. It was not conceived merely to mean a narrow, bread-and-butter commodity which must always be salable for the good, hard money of the marketplace, although these concrete values were neither neglected nor impugned. A useful school subject furnished either insights to illuminate directly the affairs and circumstances of everyday life or abilities which would almost certainly be employed by the individual. When the friends of the academy advocated useful subjects they were frequently protesting against the remote indirection of the education offered in the decadent Latin grammar school. They had no objection to teaching methods which involved some rigorous discipline, but they

thought it better to employ desired disciplines in the study of subjects which contained intrinsic values for the individuals who studied them and for the times in which these young people were to live.

Benjamin Franklin, if he could have had his own way, would have established in Philadelphia an academy in which the classical languages should not be taught. But at the insistence of his friends, who told him that recommendation of the classics would attract the support of men whose money would be needed, he kept his tongue in his cheek and the classics in the proposed curriculum. Within very few years, instruction in the classics assumed its traditional dominance, and Franklin in his last years, rather uncharitably, reproached his fellow sponsors for having "deviated" from the "original design" of the Philadelphia academy.

But, although the classical languages were still taught in most of the leading academies, the time and attention given to them had been much reduced. Much of their former place had been taken by vernacular language and literature and by instruction in modern foreign languages. It was apparently a characteristic habit to think of education and literature as being practically synonymous. For instance, one of the first permanent allocations of New York State's funds for the support of education was designated as the "Literature Fund," and in both the eighteenth and nineteenth centuries writings concerning education commonly referred to it as "instruction in good literature" or "literature." Very naturally, when classical instruction began to be discredited, other literary subjects were sought to replace it. Two contemporary circumstances lent plausibility to this shift. The spread of commerce over the seven seas suggested the "usefulness" of modern foreign languages. Perhaps because it was hardly fitting that a civilized American should learn the language of a heathen, no academy seems to have provided linguistic training for future masters of China clippers. But few foreign tongues were completely neglected. Furthermore, the French origin of revolutionary ideas which had been adopted and cherished by Americans and the direct assistance given by France to the young republic had inspired a very friendly attitude toward the French language. The academy inevitably achieved a reputation as the school which inaugurated and extended instruction in modern foreign languages.

English as a separate field of instruction and training was a standard

offering in all academies. The language arts — written and oral expression — were emphasized. Mathematics was also a staple. Arithmetic, algebra, geometry and trigonometry were the usual basic minimum, to which were added in some cases courses in the special applications of mathematics in navigation, engineering, or commercial accounts. Natural science courses, with natural philosophy and chemistry as the most common subjects, were almost as common as those in mathematics, and the special phases of the field — astronomy, botany, anatomy and physiology, optics, and the like — were offered in great variety. These three fields, the languages, mathematics, and natural science, were the major elements in the typical academy curriculum. The linguistic emphasis was the outgrowth of very old academic tradition. Mathematics was doubly fortunate in being popularly esteemed as an excellent vocational utility, indeed, it deserves to be called the chief “vocational” subject of its day, and as a superior medium for mental discipline. Thus it was well suited to attract the approval of both laymen and schoolmen. And natural science was a universal favorite. Franklin and the American Philosophical Society had done much to foster popular interest in science, and youthful America appreciated a branch of knowledge which could provide not only explanations of the aurora borealis and the cause of common colds, but also efficient stoves and lightning rods. If people generally were aware of the old quarrel between science and supernaturalism, they were temporarily too much concerned with secular affairs to be bothered much about it, and the wrath and fear which were later to boil up in the guerilla battles between saucy Darwinians and the guardians of orthodoxy had not yet arisen to bedevil the growth of science in the schools.

Parenthetically, it is significant that these major subjects emphasized the production of proficiency rather than the development of understanding. In the languages and mathematics the pupil received training and practice intended to increase his competence in the performance of processes or skills. Only in natural science was there primary concern for the development of insights or understanding. This preoccupation with proficiency and the relative neglect of a person's need for wisdom were partly the bequests of scholastic tradition. In the colonial schools at least education was a discipline to develop certain abilities or powers, and habits. Another encourage-

ment of emphasis upon proficiency sprang from the ideals of the times. The man of action was admired. If he could do something with a flourish he was accepted without much concern about his knowledge or wisdom. The "ready talker" was often cited as an object of emulation by schoolboys. Consequently the academy concerned itself very seriously with the business of producing in young people the superficial accomplishments or proficiencies which serve to give some temporary and flashy distinction even to those who are paragons of ignorance. But if this individualism seems slightly shoddy and pathetic, it was not a peculiarity of the academy. It was the pungent essence of contemporary life.

The usual program of studies, however, was by no means limited to the few subjects which have already been mentioned. These subjects occupied a large place, but they were complemented by a very extensive group of additions. Some of these other subjects might better be called topics, for in many cases they occupied very little space in the school's program of instruction. Very likely some of the curricular elements were little more than the subjects for lectures or series of lectures to be given occasionally. Furthermore, there was no sharp line of demarcation between the curriculum proper and that modern academic margin called the extra-curriculum. The academy's program of instruction was not patterned by the exigencies of the calendar. A course was not necessarily something which proceeded arbitrarily forty-five minutes per day, five days per week, and twenty weeks per half-year. On the contrary, the curricular place occupied by a particular subject was adaptable in its importance and its substantial bulk. Thus a new subject, new in the sense that scholars or discoverers had not yet made much more than a beginning in their mastery of it, or new in the fact of its recent introduction in the school's program of studies, might be assigned a place small in comparison with the positions of other subjects but large enough to furnish adequate introduction and trial of its educational potentialities. These conditions, however advantageous they were in other ways, interfere with our desire to know how much attention was given to each of the several elements in the program.

The subjects offered in 167 New York State academies in 1853 are thus listed by Gifford, who derived his data from contemporary regents' reports:²⁹

²⁹ Gifford *Op cit*, p. 81.

Arithmetic, geography 162 *	Electricity 50
Spelling	Hydrostatics 3
Reading, pronunciation	Magnetism 42
Grammar	Technology 7
Writing	Optics 34
Declamation	Mechanics 43
Composition	Chemistry 141, agricultural chemistry 14
Rhetoric, elements of criticism 107	Anatomy 66, hygiene 41
General history 119	Botany 119, natural history 35
Mythology 16	Natural theology 22
U S history 95	Evidences of Christianity 26
Drawing 24	Moral philosophy 83
Draughting 1	Intellectual philosophy 97
Algebra 165, logarithms 44	Logic 31
Plane geometry 157	Political economy 21
Trigonometry 102	Bookkeeping 146
Surveying 103, leveling 20	French 152
Navigation 25	Spanish 12, Italian 12
Mensuration 58	Greek 136
Astronomy 152	Latin 162
Analytic geometry 19	Greek antiquities 24, Roman antiquities 26
Calculus 12	Law and government 95
Descriptive geometry 6	German 69
Conic sections 24	Hebrew 3
Civil engineering 12	Principles of teaching 33
Natural philosophy 161	Geology 56, meteorology 17, mineralogy 17

* Numbers following subjects indicate in how many of the 167 academies certain subjects were offered

Obviously, linguistics, mathematics, and natural sciences constituted the major portion of the program of instruction, but social studies and humanities were by no means ignored.²⁰ Since history was still the only social study with which most people were familiar and the approach which was most highly esteemed by academic scholars, it was natural that courses in history should be much more common than those in political economy or law and government; but the fact that the latter course was offered in more than one-half of these academies in 1853 is eloquent testimony of the responsiveness of the academy to the intellectual currents of its time. Instruction in humanities also represents a transition, and unfortunately a conflict. Particularly in colonial America there had been a strong tradition in support of the notion that religion and the authorized agencies of religious institutions are the only safe avenues of approach to the study of human nature and its problems and ideals. That this conception was rapidly changing is suggested by the secular nomenclature of such courses as "intellectual philosophy," "moral philosophy," and "logic." "Natural

²⁰ As here used, the term "humanities" has reference to human nature, the mind and spirit of man. It is not intended to refer to "polite literature" or to linguistic studies.

theology" and "evidences of Christianity" were much less frequently offered. But even though the growth of secular conceptions fostered an intellectual approach to the humanities, the changing tradition of religious freedom continued to impose sectarian restrictions upon developments in this field.²¹ It must be remembered also that systematic, secular study of human nature is one of the latest developments in the expansion of scientific knowledge. In the nineteenth century, to say nothing of the twentieth, that interpretation of human nature which we identify as psychology beguiled the layman with both phrenology and metaphysics. Neither the social studies nor the humanities were sufficiently systematized, and decadent, to make easy the academy's instruction in them; but the fact that the academy tried as well as it was able to present these subjects as important elements in the developing culture of the period is significant and creditable.

It is sometimes asserted, particularly by commentators who have perused contemporary advertisements through which sponsors of private academies sought to attract pupils, that the academy fostered many sorts of artistic training. Embroidery, waxwork, fencing, dancing and music were sometimes taught even in small rural communities. But Gifford's list of subjects indicates that the arts were usually excluded from the academies in New York, and Mulhern's even more detailed study of curricula in Pennsylvania indicates that drawing and music were taught in a very small minority of the schools.²²

The life of the school. The academy suffered from no stern pedagogic conscience. Unlike some of its successors, in which the extra-curriculum and the curriculum are sometimes maintained separately and even competitively, the academy fostered numerous enterprises among its students, without bothering itself about units or academic credits or any arbitrary distinction between curriculum and

²¹ The early Puritans had come to America hoping to establish colonies where everybody would be free to believe and to worship as the Puritans did. Anyone who disagreed with them was free to keep silent concerning his beliefs or to flee to the backwoods. Reacting against this brand of religious freedom, Americans soon began to develop a sentimental interpretation of religious freedom which assures every man the right to believe anything he wishes to believe about any subject and to act upon his belief, provided he labels his belief and his action with the name of religion. Consequently the newspapers are furnished with a constant supply of interesting persons who have sought to suspend the laws of the physical universe or of their political community and to justify the suspension by calling it religious, and the schools are hindered in any effort to instruct youth authoritatively concerning human nature.

²² James Mulhern *Op cit*, pp 328-29

extra-curriculum. It was natural that the young people of the times should engage in literary and oral exhibitionism. If the theater was not always a respectable institution, the lyceum, the literary society, and the oratorical or debating society were cherished community activities, and the pupils of the academy pursued them with no less zeal than their elders.

Grizzell shows that, at least among the publicly supported secondary schools in New England cities, there was a very considerable development of "pupil activities" before 1865.²³ In certain schools at least, there were definite provisions for student government (sometimes apparently involving the application of the "honor system"), school newspapers, dramatics, and a variety of other phases of the speech arts. There seems to have been neither demand nor provision for scholastically sponsored athletic bouts and exhibitions.

Teachers. Not infrequently the academy was conducted solely by one teacher, who was compelled by circumstances to demonstrate quickly such show of proficiency or result as would justify his continued support. He was innocent of professional training, and ordinarily he was not subject to the approval of any certifying agency. Under influences of this sort it was natural that the teacher should not be too well grounded in scholarly knowledge of the subjects which he presumed to teach. His own lack of preparation and the lack of pedantic traditions in connection with many of the newer subjects in the program compelled him to depend upon his own ingenuity in presenting his subjects agreeably. Consequently the instruction in the academy, during its early years particularly, exhibited some very refreshing transitions from the bleak drudgery of the old Latin school. Inevitably, however, professional ideals and practices varied greatly. Some teachers cheerfully announced that they were the possessors of pedagogic secrets the application of which would permit their pupils to learn without effort more than could be learned in any other way. Others complacently affirmed their adherence to the disciplinary conceptions of their colonial forebears. The development of professional ideals and of the rationale of teaching was necessarily haphazard.

In spite of the casual preparation and the unevenness of its own teachers, the academy helped greatly to change the traditions and the preparatory opportunities of America's teachers. It provided the

²³ Emitt Duncan Grizzell *Op cit*, chapter XV, pp 331 ff

education for thousands of prospective teachers and served to popularize the notion that a teacher should have had more schooling than his pupils have had.

Further characteristics of the academy. What has already been said of the academy surely suggests that it was a most flexible and unstandardized institution. But the full significance of its flexibility cannot be appreciated unless it is recognized that the academy sprang up usually as a new enterprise, without much definite advance planning, and without even much definiteness as to its relationship to other existing schools. Because it accepted pupils with various levels of prior preparation or lack of preparation, the academy was forced to adapt its work to the needs and abilities of its pupils, and its pupils differed enough in their amounts of prior schooling to make this adjustment a notable achievement. Doubtless partially a result of this hospitable policy, there was often uncertainty about the academy's place in the scheme of educational institutions. Some looked upon it as the equivalent and competitor of the college. Indeed, it seems likely that many academies and colleges were practically identical, and many academies later became colleges. The Central High School of Philadelphia, established in 1836, was actually authorized by the legislature to confer academic and honorary degrees. (Unfortunately for the millions of young people who now have nothing more than a high-school diploma to show for their years of secondary education, Pennsylvania's State University asserted that it could not compete with the high school on such even terms and besought the legislature to restore to it a distinctive degree-granting monopoly.)

Special types of schools. With all its flexibility and its hospitality to novelties, the academy was not sufficiently varied to include all types of scholastic eccentricity which blessed the nineteenth century. One of these exceptions was the manual labor school. In 1804 in his school of Hofwyl, in Switzerland, Fellenberg had attempted to provide practical training in agriculture and to prepare young workmen to be "at once stronger and more adroit, more hardened to work, and more disciplined in their conduct than was at that time customary among day workmen."²⁴ Within thirty years many Americans had heard of Fellenberg's effort and had claimed it as the inspiration of their

²⁴ *Report of the Commissioner of Education for the Year 1888-1889* Washington. Government Printing Office, 1889, pp. 420-21

own scholastic enterprises. From Maine to Indiana at least a score of schools offered young people the opportunity of combining literary studies with practice in farming and such related arts as blacksmithing, coopering, and chair-making. Although there is reason to believe that these arrangements were often intended chiefly to enable young people with little money to work their way through school, the combination of literature and farm labor, which in Switzerland had been intended for prospective farm laborers, was in America hailed as a sort of panacea. After the passing of fifty years or more had made it safe to do so, the Commissioner of Education reported thus concerning American applications of European theories:

In crossing the ocean European ideas seem to suffer a sea-change into something if not exactly rich still quite strange. Fellenberg's idea was seized upon here as the means of preparing ministers of the gospel by the clergy, as a substitute for gymnastics by the hygienists, as practical by those who believe that "the first duty of man is to work." "It furnished exercise adapted to interest the mind." "Its moral effect would be peculiarly happy." "It would promote habits of industry, independence of character, and originality." "It would be adapted to render permanent all the manlier features of character and to afford facilities to the student in acquiring a knowledge of human nature." "It would increase the wealth of the country, tend to do away with those absurd distinctions in society which make the occupation of an individual the standard of his worth and would also render permanent our republican institutions."²⁵

In spite of the potentialities glowingly attributed to the bucolic "manual labor institutions," their distinctive features had disappeared by 1840, when these schools had merely ceased to exist or had adopted the more conventional pattern of the contemporary academy.

But these exceptional instances are much less significant than certain shifts in the major currents of the academy's development. Although report has it that the academy flourished briefly at or near the mid-century, and declined thereafter, until, about 1890, it had expired and had been supplanted by the public high school, this is only nominally true. Academies as such disappeared. Some of them continued under public auspices and were called high schools. Others were disbanded, their funds being returned to their private sponsors and their pupils

²⁵ *Report of the Commissioner of Education for the Year 1888-1889* Washington Government Printing Office, 1889, pp. 420-21

going forthwith to public high schools which carried on with little immediate change. The reasons were partly financial, due partly to the difficulty which private sponsors naturally encounter when the enterprise they support finally attains such prestige that the public generally wishes to take advantage of it, and partly to the growth of the strength and fiscal stability of the states and municipalities of America. The academy had made secondary education popular, and public treasuries, after the passing of more than two hundred years, had finally reached a condition which promised to make the ideal of the "old deluder law" attainable. The public high school, then, came into being somewhat naturally when the legal and fiscal bequests of the Latin grammar school had reached solvent maturity; but educationally the ideals and the practices of the early high school were continuations of the experience of the academy.

THE PUBLIC HIGH SCHOOL

The term "high school" has usually been employed in America to designate a publicly supported, free secondary school. It is not the distinctive characterization of a particular type of educational program. For example, the first American "high schools" were academies. Boston, in 1821, Philadelphia, in 1836, and many other cities in the first half of the nineteenth century had established high schools which differed from contemporary academies only in being supported from the public treasury and directed by public officials. In their educational features and their personnel these high schools merely shared the patterns and trends of the academy. In Massachusetts, where traditions favorable to public education had always been strong, public high schools were numerous even before 1850, and the academies there were in many instances practically public institutions, so generously did they receive the encouragement and support of the community at large and so fully were the educational demands of the community supplied. In other states where the tradition of private secondary education was stronger public high schools did not come into existence as rapidly as in Massachusetts, although other eastern states, particularly Pennsylvania and New Hampshire, were not far behind.

High schools actually emerged in several different ways. Some were

inaugurated as new institutions. Some were merely the result of transition from private sponsorship to public support and control. Some grew up as gradual extensions of elementary schools. Their coming could scarcely be called spectacular, for they were a part of an increasingly rapid trend toward urban life and change was almost commonplace. But the coming of the high school, during the thirty years following the war between the states, produced much dissension. The quarrel was then commonly called "the high-school question"

"The high-school question." In almost all sections of the country opposition to the public high school, although it probably came from minority groups, was vigorous and persistent. In some places the conflict concerning the high school continued sporadically for several decades, and was finally terminated only by decisions in the higher courts. The immediate issue ordinarily arose with respect to the right of the state to apply funds derived from general taxation to the support of secondary schools. But there were many arguments in which general education or social policy were expounded in terms of politics, morals, religion, economics, or almost anything else which the partisans of one side or the other believed to be pertinent. For example, opponents of the high school asserted that it was a school for the favored few, which would only increase social cleavages, that it would be costly, requiring more money than it deserved, and diverting needed funds from elementary schools; that elementary education was enough for adequate discharge of the responsibilities of citizenship, that the high school would stimulate the "poorer classes" to try to rise to superior economic levels and make them impatient with their accustomed work. Friends of the high school believed that the cure for social cleavages was more education, not less. They admitted the greater expenditures needed to maintain high schools, but insisted upon their worth, and they pointed out that, rather than harming the elementary schools, high schools would help them by supplying for them teachers who were not entirely uneducated. Rather than making workers dissatisfied with their lot, the high school would make them more efficient and profitable to their employers.²⁶

²⁶ For an excellent summary of the whole story of "the high-school question," see the series of articles by B. Jeanette Burrell and R. H. Eckelbery "The High-School Question Before the Courts in the Post-Civil-War Period," "The High-School Controversy in the Post-Civil-War Period: Times, Places, and Participants," and "The Free Public High School in the Post-Civil-War Period," *The School Review*, 42: 255-65, 333-45, 599-605, 667-75 (April, May, October, November, 1934).

Whether these arguments — and a host of other claims and counter claims — had much influence upon the final outcome is perhaps questionable, but in almost every case in which the high school's right to public support was tested in the courts the decision was favorable. By 1890 it had become clear even to the enemies of the high school that its position was too secure to be forthrightly attacked in the courts.

Setting the schoolhouse in order. As long as the winds of public controversy threatened to destroy the high school it was hardly to be expected that educators would undertake to remodel the structure. Until the storm had passed, any special effort of theirs would be to make its supports and fastenings a bit more secure. Any new undertakings would naturally be those which could easily be managed within the quiet confines of the scholastic cyclone-cellar. For some time there had been a growing demand, among educators at least, for a bit more order in the work of the school. The academy, which had perhaps enjoyed more freedom from restraint than any other American school, had done well. It had at least popularized secondary education to the point of making it fiscally secure. But the professional beneficiaries of that security were so uncharitable as to suggest that the scholastic liberties which produced it should be curtailed. During the last thirty or forty years of the century there had been an increasing demand for better school organization based upon classification of pupils into somewhat uniform grades. It was very common both in elementary schools and academies to operate without gradation. This was not a serious weakness, in fact it was perhaps an advantage, in a small school under a single teacher. But as schools increased in size the merely physical aspects of their administration urgently demanded a more orderly system and routine. Apparently this early demand for a more orderly classification of pupils was a natural and very legitimate result of the increasing size of schools and the growing scope of their programs. There were, however, a number of other influences which focused the attention of educators on the problems and possibilities of regimenting the school.

Even many early high schools differed in the number of grades which they included. Some had only one or two years' work. Others had five or six. Such discrepancies were inconvenient, if for no other reason than the questions which they inspired on the part of laymen who were curious about why their school had more or less than other schools had.

They also interfered with the characteristic tendency of educators to imitate one another. Uniformity was desired.

Educational or financial economy chanced to be the concern of some persons who aroused interest in school organization. During his last term as governor of New York DeWitt Clinton had "suggested that most of the years in elementary education were wasted and could be used in a study of the elements of algebra, mineralogy, agricultural chemistry, mechanical philosophy. . . ." ²⁷ More than a half-century later President Eliot of Harvard was to be a potent evangelist of the same general idea. It must be remembered that during most of the nineteenth century economic necessity, both societal and individual, supported this notion. Young people who had work waiting for them could not remain long in school. ²⁸

In addition to the practical need for better internal organization of high schools, there was widespread demand for standardization and uniformity. In New York, which has a strongly centralized state system of schools, the Board of Regents in 1891 inaugurated a system of uniform organization and accounting of courses of instruction, and within a few years a national committee on college entrance requirements and the Carnegie Foundation for the Advancement of Teaching were to establish nationally the arbitrary assumption that education is the accretion of indivisible and qualitatively different "units." ²⁹ For purposes of evaluation all units were assumed to be equivalent in value if they represented something which had happened five times a week throughout a school year. Quantity was the standard. The quality and character of instruction were not taken into account.

Undoubtedly the strongest influence in the general effort to achieve a neat quantitative organization of the secondary school was the work of the "Committee of Ten." ³⁰ Nominally the officially appointed representative of the National Education Association, this committee

²⁷ Walter John Gifford *Op cit*, p. 34

²⁸ Ironically enough, the American secondary school was so tardy in adopting the timely suggestion of Clinton and Eliot that by the time it had taken action and had developed the junior high school there was no longer much social or economic necessity for shortening the school program; indeed, the program seemed to require lengthening.

²⁹ I. L. Kandel *History of Secondary Education* Boston: Houghton Mifflin Co., 1930, p. 479.

³⁰ This committee is one of several which were appointed to lick the young high school, or some part of it, into shape. Even the titles given to these committees are suggestive of the quantitative and numerical obsessions of educators in those days. We have the committee of five and the committee of seven, and so on.

on secondary-school studies was actually the creation of its chairman, Charles W. Eliot, president of Harvard University. This committee was to determine the general functions to be served by the high school and recommend appropriate curricula. At one stroke the general bias of the committee's work was largely determined by the organization of the "conferences" into which the tasks of the general committee were immediately subdivided. These subcommittees were concerned with: Greek; Latin; English; Other Modern Languages, Mathematics; Physics, Astronomy, and Chemistry; Natural History (Biology, including Botany, Zoology, and Physiology); History, Civil Government, and Political Economy, Geography (Physical Geography, Geology, and Meteorology). The members of these committees were for the most part the academic partisans of the subjects with which they dealt. Although they were forced to admit that the instruction in philosophy, morals, and ethics, in drawing and other arts, which were commonly taught in secondary schools, had not been given any representation on the committee, they could not bring themselves to allow any definite place for any subjects except their own. They divided up the curricular territory among their own cherished subjects and expressed the unctuous hope that other valuable subjects might be taught incidentally in connection with the subjects which they commended. Thus did the humanities and the arts lose their scholastic inheritance because they lacked friends in court.

The committee also commended arrangements whereby their preferred subjects might be taught in lower school grades, a project in which their own interests and one of the cherished ideals of their chairman were complementary. But perhaps even more important than this early impetus toward the junior high school were several interpretations of the function of the high school. Although some of these conceptions were, from the view of the present day, both inconsistent and dubious, they were exceedingly influential in shaping the destinies of the high school for many years. It was forthrightly stated that "a secondary school programme intended for national use must . . . be made for those children whose education is not to be pursued beyond the secondary school. The preparation of a few pupils for college or scientific school should in the ordinary secondary school be the incidental, and not the principal object."²¹ But, in order to simplify

²¹ National Education Association: *Report of the Committee of Ten on Secondary School Studies* New York American Book Co., 1894, p. 51

and standardize high-school programs, these authorities affirmed that a subject should not be treated differently for pupils who will go to college, for others who will go to scientific school, and for those who are going to neither. That is, in considering broad general policy, these academic specialists generously pointed out the importance of children's differences in educational need. But when they got down to what was for them at least the very important business of prescribing the content and mode of instruction to be employed in the schools they did not merely ignore these differences in individual need. They very specifically recommended complete neglect of them

Having thus recommended identical treatment for pupils whose differences in need they specifically recognized, the committee went on to recommend another type of equivalence, equivalence of subjects. They asserted that no great harm would be done if some schools could offer only portions of the program which they recommended, or if some pupils chose certain subjects rather than others in preparation for college, for in any case the pupils "would have had four years of strong and effective mental training." The increasingly common assumption that the educational values of a school subject could be assessed by knowing how many minutes were devoted to instruction in it was thus confirmed. The precedent thus established encouraged promiscuous choice of approved subjects by schools and pupils.

Actually the immediate destruction of qualitative standards which was implicit in these recommendations was somewhat restricted and delayed by the committee's recommendations concerning content of courses and modes of instruction. These stipulations imposed very severe limitations upon any future attempts to expand the high-school program of instruction.

The work of the Committee of Ten was to be far-reaching. The curricula which they commended were to be employed widely and, in some schools at least, for two-score years and more. The attempt to get simplicity and standardization, even at the expense of neglecting differences in the abilities and needs of pupils and differences in the educational values of different curriculum materials, was a definite backward step from the adaptability of the older academy, and it was later to produce some of the public high school's most serious maladjustments. Even at the time there was strenuous objection to the presumption of equivalence among various subjects of instruction.

In fact one of the committee's members, James H. Baker, dissented vigorously from a "theory which makes education formal and does not consider the value of the content."³² But the dissenters were an ineffective minority. The specific and concrete curricular suggestions of the committee appealed to educationists, who adopted them and gave them permanence.

The work of the Committee of Ten is by no means the only important landmark in the early progress of the public high school. There were other developments which merit attention. But many of these, although they had their meager beginnings in the nineteenth century, have achieved their greatest significance in connection with the public high school of the twentieth century. They will, therefore, be dealt with in connection with the trends and problems of the modern school.

It is, however, particularly fitting that the work of the Committee of Ten should be presented as the transition between the nineteenth-century academy and the twentieth-century high school. If it did not actually deliver the final, mortal blow to many of the academy's major ideals and practices, it at least served as their obituary and as a warning to anyone who should wish to revive them. The academy's curricular freedom, or, if you prefer, opportunism, its hospitality to innovation; its flexible adaptability to the needs of its pupils — these things which the academy had been compelled to be and to do, because of its precarious dependence upon the continuing favor of its patrons, were now to be discarded. Fiscal security had been won, and the immediate objective of educationists was system, order, uniformity. The school would thereafter be organized and standardized. But, beyond its immediate objectives, the Committee of Ten projected the development of the secondary school. The school was at last beginning to be recognized as a social agency, as an instrument of public policy. A theory of the educative process appeared in its own right. The significance of differences in pupils was at least considered. And, perhaps most important of all, attention was directed to the content of the educational program which is the essence of the school enterprise.

Without intent to disparage the wisdom or foresight of these committeemen of the nineties, they may be said to have reflected the increasing scope of our education as a nationwide enterprise and the

³² National Education Association. *Report of the Committee of Ten on Secondary School Studies*. New York: American Book Co., 1894, p. 51.

growing recognition of the complexity of its problems. From this time forward the development of secondary education in the United States cannot possibly be told in single chronological order. It becomes necessary, therefore, to give special attention in turn to several of the major phases of the secondary school's obligations and practices, the young people whom it serves, its basic purposes in a democratic society, and the program which it employs in trying to meet the challenge of the twentieth century.

Just how much and in what ways the contemporary secondary school has been influenced by its traditions is obviously a matter of opinion. However, if we may judge solely from the past, the most plausible expectation is that today's schools retain uncritically much that is merely traditional and irrelevant, or even inappropriate, to the needs of today. Many of the subjects taught and the methods of teaching them may be expected to be outworn. In particular, it is probable that the school would emphasize linguistic and literary subjects, teaching them in formalized scholastic fashion. Furthermore, although the individual school as an institution will probably be limited by local control, its program will undoubtedly have little relation to the characteristics of its own community. The historical record suggests that we may expect the contemporary school to receive much unfavorable criticism, to which it will give too little active attention. We should not be surprised to find that some schools are so unready or unwilling to make positive changes that they lose both the popular approval and the financial support without which they cannot continue to exist.

Over against these less fortunate foreshadowings, however, stands the stubborn fact that the secondary school has continually changed. And, on the whole, the changes have surely been for the better. Not only has the school gradually extended its services to more and more of the nation's youth, it has also sought to provide for them experiences reflecting more truly their personal needs and the world in which they live. The story of its past strongly suggests that the contemporary school will not merely change, but contribute to the schools of the future.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Trace the historical development of secondary education in your own state, giving particular attention to trends which differ from the main currents in the growth of American secondary education.
2. Examine carefully and somewhat extensively the writings of recognized contemporary leaders in secondary education. Try to discover both the extent to which they make essential references to the historical background of our secondary schools and their judgments of the worth of traditional influences
3. Select a secondary school which you know well and analyze its practices so as to identify the elements in its program which seem chiefly to represent the influence of tradition.
4. Compare the programs of secondary schools in long-established communities on the eastern seacoast with those in newer communities in western sections of the United States. Show how these differences are the results of historical influences.
5. It is commonly asserted that small rural schools are more traditional than large urban schools. Is this true? What is the explanation?
6. Ask some experienced secondary-school teachers to identify the most important distinctive characteristics (not more than three or four) of a modern school. Consider each of these points carefully in the attempt to discern in what ways it was or was not characteristic also of the nineteenth-century academy.
7. Trace the historical development of a particular subject or field of instruction in the secondary school
8. Possibly certain consequences of change in American secondary schools have been definitely undesirable. In any case, some have been less desirable than others. Select for analysis and appraisal the changes which seem to you to have been least desirable.
9. Assuming that it is to be presented to persons who are seriously interested in secondary education and who are prejudiced against traditional elements in our secondary schools, prepare a convincing brief in which you appraise the merits of studying historical trends.
10. In the light of its development in the past, what significant predictions can reasonably be made concerning the probable future development of the secondary school?

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF
THE HISTORICAL DEVELOPMENT OF THE SECONDARY
SCHOOL*General*

There are not many books dealing with the historical development of the secondary school alone. Some of the best books are concerned with history of education in general. Certainly one of the most thorough and most widely used of these general histories is that of Cubberley. His writing is quite unadorned and substantially factual. His *Readings* provide interesting selections of source material. Knight's history is somewhat more spritely in style, but less fully factual. Although it has been less widely tested in use than the books already mentioned, the history by Eby and Arrowood merits examination by some students. Dexter's account is more readable than some others, although it is much less detailed in its presentation of fact, and it does not, of course, take into account developments extending beyond the turn of the century.

Cubberley, E. P. *The History of Education*. Boston: Houghton Mifflin Co., 1920. 849 p.

—: *Readings in Public Education in the United States*. Boston: Houghton Mifflin Co., 1934. 534 p.

Dexter, Edwin Grant: *A History of Education in the United States*. New York: The Macmillan Co., 1906. 655 p.

Eby, Frederick, and Arrowood, Charles F. *The Development of Modern Education in Theory, Organization and Practice*. New York: Prentice-Hall Co., 1934. 922 p.

Knight, Edgar Wallace. *Education in the United States*. Boston: Ginn & Co., 1934. 613 p.

Unquestionably the most useful book on the history of secondary education is that by Kandel. It is so organized as to emphasize the influence of certain social trends both in the United States and in Europe. Although it was written a good many years ago, Brown's work will repay anyone who has the time to read it carefully and who wishes to obtain detailed information about secondary schools prior to the twentieth century. Even though they deal with the secondary schools of particular states, the works of Gifford, Griffin, and Mulhern will have value for the person who wishes to read more than the history of secondary education in general. Gifford's study is perhaps more informative than interesting in style. Griffin is more readable; he presents pungent descriptions of some of the early high schools in New England. Mulhern's study is much more complete, and although it is prosaic in general tone, it recaptures some of the tribulations and triumphs which were the lot of the secondary schools in earlier days. Aiton supplies

some reminiscent anecdotes which will help the young student to appreciate how much our schools have changed within the lifetime of his older contemporaries. Grizzell's history of early New England high schools is very interesting and easily readable. It is particularly effective in describing the secondary schools of the period of the academy.

Aiton, George B. "The Beginnings of Secondary Education in Minnesota," chapter XIX of *The Changing Educational World* (Alvin C. Eurich, Editor). Minneapolis: University of Minnesota Press, 1931, pp. 222-37.

Brown, E. E. *The Making of Our Middle Schools*. New York: Longmans, Green & Co., 1903. 547 p.

Gifford, Walter John: *Historical Development of the New York State High School System*. Albany, N. Y.: J. B. Lyon Co., Printers, 1922. 202 p.

Griffin, Orwin Bradford. *The Evolution of the Connecticut State School System*. (Contributions to Education, no. 293.) New York: Teachers College, Columbia University, 1928. 261 p.

Grizzell, Emit Duncan: *Origin and Development of the High School in New England Before 1865*. New York: The Macmillan Co., 1923. 428 p.

Kandel, I. L. *History of Secondary Education*. Boston: Houghton Mifflin Co., 1930. 570 p.

Mulhern, James. *A History of Secondary Education in Pennsylvania*. Philadelphia: Published by the Author, 1933. 714 p.

Even though they are not intended to serve as histories of education in general or of the secondary school in particular, there are a few books which should be called to the attention of the general reader. Three of them are contained in the annual series of Inglis Lectures. The analysis by Counts shows how our secondary education has been influenced by our development of industrial life. The lectures by Judd and by Morrison serve to emphasize certain distinctive characteristics of American secondary schools which Americans are likely to take for granted. Except for its excellence, Curti's book is difficult to classify. It has few of the earmarks of a textbook, and it is very different from the usual sort of history. It is a very incisive and stimulating series of analyses of the ideals and characteristics of some of our most influential leaders in American education during the nineteenth and twentieth centuries. Most students of secondary education seem to enjoy reading it. Although their method of statement may tax the attention of some readers, Tugwell and Keyserling present very clearly the transition from our highly individualistic life a few decades ago to a more social mode of life at present.

Counts, George S.: *Secondary Education and Industrialism*. Cambridge: Harvard University Press, 1929. 70 p.

- Curti, Merle *The Social Ideas of American Educators* Part X: Report of the Commission on the Social Studies, American Historical Association New York: Charles Scribner's Sons, 1935 613 p
- Judd, Charles Hubbard *The Unique Character of American Secondary Education*. Cambridge Harvard University Press, 1928 63 p
- Morrison, Henry. *The Evolving Common School* Cambridge. Harvard University Press, 1933. 62 p
- Tugwell, Rexford G, and Keyserling, Leon H *Redirecting Education*. New York. Columbia University Press, 1934 273 and 285 p.

Special

In addition to these materials most of which will be valuable for the person with general interest in secondary education, there are certain publications which should be mentioned for their treatment of particular aspects of the history of the secondary school. Some of the titles listed below will be sufficiently indicative of their content, but others seem to require some explanatory comment. Although Hansen can be understood by the general reader, his discussion will be perhaps more interesting for the person who has definite background or interest in philosophic ideas and ideals. The story of the Latin School in Boston is simply and fully told. It contains little in the way of incisive interpretation, but it will be interesting to those who are already somewhat interested in its subject. The study by Inglis is a highly condensed and factual report. It is now of interest chiefly to those who are admirers of Inglis and his work and to those who find pleasure in the study of careful research. Knox and Mather may not be available to most readers. They serve very well to illustrate the spirit and the ideas of leaders who sought to influence the early development of our secondary schools. Pitkin's study should give comfort to those who fear that depressions tend to hurt and hinder the schools. Seybolt is a zealous searcher for original source materials, which he merely presents and permits to speak for themselves. Woody's study of women's education is alone in its field, which it treats very fully.

- Bennett, Charles Alphaeus *History of Manual and Industrial Education Up to 1870* Peoria, Ill.: The Manual Arts Press, 1926 461 p
- Hansen, Allen Oscar *Liberalism and American Education in the Eighteenth Century* New York: The Macmillan Co., 1926. 317 p
- Holmes, Pauline. *A Tercentenary History of the Boston Public Latin School*. Cambridge: Harvard University Press, 1935. 541 p
- Inglis, Alexander James *The Rise of the High School in Massachusetts*. (Contributions to Education, no 45) New York: Teachers College, Columbia University, 1911. 166 p

- Knox, Samuel *An Essay on the Best System of Education, Adapted to the Genius of the Government of the United States*. Baltimore. Warner & Hanna, 1789 173 p
- Mather, Cotton. *A Discourse on the Good Education of Children* Boston: Dutton & Wentworth, 1928 32 p
- National Education Association *Report of the Committee of Ten on Secondary School Studies* New York American Book Co , 1894 249 p
- Pierce, Paul Revere: *Origin and Development of the Public School Principalship*. Chicago University of Chicago Press, 1935. 232 p
- Pitkin, Royce Stanley. *Public School Support in the United States During Periods of Economic Depression*. Brattleboro, Vt : Stephen Day Press, 1933. 143 p
- Seybolt, Robert Francis. *The Public Schools of Colonial Boston 1635-1775*. Cambridge. Harvard University Press, 1935 101 p.
- Small, Walter Herbert. *Early New England Schools* Boston Ginn & Co , 1914 401 p.
- Woody, Thomas. *A History of Women's Education in the United States*, vol. I. New York, and Lancaster, Pa : The Science Press, 1929. 608 p. Particularly chapter X.
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PART II

THE SCHOOL'S BENEFICIARIES
AND CLAIMANTS: ITS PUPILS
AND THE SOCIAL ORDER

THE SECONDARY-SCHOOL POPULATION

It is probably not an exaggeration to say that no aspect of secondary education in the United States exhibits more astonishing changes and greater contrasts than does its population. So frequently have observers commented upon the rapid increases in enrollment that extraordinary growth begins to seem commonplace, but each succeeding decade brings forth new marvels of expansion. Friends of the secondary school are glad to see the growing tendency of young people and their parents to profit by what the secondary school has or promises to offer. The feeling of gratification is, however, often mixed with deep misgivings lest the secondary school shall be unable to deal justly and wisely with the boys and girls who join it yearly in hundreds of thousands.

Because the secondary school is not uniformly standardized in terms of the grade levels which it includes, it is difficult to ascertain exactly how many pupils have been and are now in schools properly classified as secondary. For example, pupils enrolled in grades seven and eight are in some school systems designated as secondary-school pupils; in other localities they are enumerated as members of elementary schools. Furthermore, it is inevitable that in our nationally decentralized school system the gathering of enrollment figures is subject to minor inaccuracies and omissions. Hence, any attempt to state precisely in numerical terms the facts concerning the total membership of young people in secondary schools can be only an approximation.

Even with this qualification taken into account, the facts concerning the population of the secondary school are strikingly interesting and important. The National Survey of Secondary Education summarizes figures which show that in 1880 only 2.8 per cent of persons aged 14 to 17 years of age were members of public secondary schools, and that in 1930 the proportion so enrolled had increased to 46.6 per cent.¹ The

¹ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake: *The Secondary-School Population*. U S Office of Education Bulletin, 1932, no 17. National Survey of Secondary Education, Monograph no 4, p 4.

following figures are indicative not only of the actual growth of secondary-school enrollments, but also of contrasts with the enrollments of elementary schools and colleges ² The figures for secondary-school enrollment include public and private schools.

TABLE 1. ELEMENTARY, SECONDARY, AND COLLEGE ENROLLMENTS

Year	Elementary	Secondary	College
1890	14,181,415	357,813	156,756
1900	16,224,784	695,903	237,592
1910	18,457,228	1,111,393	355,215
1920	20,864,488	2,494,676	597,857
1930	23,588,479	4,799,867	1,100,737
1936	22,770,351	6,435,703	1,208,227

Obviously the elementary school has for a considerable period received into membership practically all of the children of appropriate age, so that its numerical fortunes reflect chiefly changes in the size of the general population and in the birth-rate. Although membership in colleges and universities has increased markedly, these institutions are still highly selective and their numerical importance is quite overshadowed by that of the elementary and secondary schools. The fact that the secondary school is generally a four-year institution, whereas there are eight years in the elementary school, makes the increases in enrollment in the secondary school so much the more significant. In the light of its present development there is no doubt that the secondary school is very rapidly reaching a position of predominant importance in our educational system. How much longer present rates of increase will continue we cannot foresee, but there is no apparent slackening. Enrollments will probably continue to grow until there is substantial attainment of the generally accepted goal of universal education for all youth.

Prediction of future secondary-school enrollments is, of course, uncertain. Economic conditions in general, and employment opportunities for young people in particular, necessarily produce unpredictable fluctuations in high-school enrollments. However, these fluctuations apply to the proportions of young people who attend school. No less significant and much more certain than these proportional fluctuations

² Statistical Summary of Education, 1933-34 Chapter I of the *Biennial Survey of Education in the United States 1932-34* U S Office of Education Bulletin, 1935, no 2 (Advance pages) 14 p. Figures for 1936 obtained directly from U S. Office of Education.

is the effect of our national birth rate. Even if the school in the near future receives into membership practically all young people of secondary-school age, the large increases which have characterized secondary schools during recent decades cannot long continue. In general the birth rates have diminished most in those areas where the largest proportions of young people are already enrolled in school. It is, therefore, most probable that in some places the total numbers of secondary-school pupils will appreciably diminish in the near future. In other places, enrollments will continue to grow. These contrary trends in different localities will increase the variety of the problems with which secondary schools must deal. Specifically, some schools with declining enrollments can devote more attention to improvements in their educational programs, while others may still be confronted with the need for mere physical facilities for more pupils. Because we have so long been accustomed to continually increasing enrollments, it may be difficult for us to recognize promptly the inevitable effects of a diminishing rate of increase in our population.

Problem of elimination. Proponents of the secondary school have long been concerned over the relatively small numbers of pupils entering the secondary school, and often disheartened by the sharp reductions in enrollment at each succeeding grade level of the secondary school. Thorndike's notable study of elimination in the schools of some twenty-three cities shortly after the turn of the century, from 1900 to 1904, showed that the number of pupils in the ninth grade was only about one-fifth of the number entering the elementary school and that in the twelfth grade the proportion had been reduced to approximately one-sixteenth.³ Marked improvement is reflected in the data presented by Kline, who sought to bring Thorndike's data up-to-date in a similar study of the same school system.⁴ Kline reported a rapid growth in the proportion of pupils retained in the ninth grade, particularly during the decade beginning in 1920. In fact in 1929 the number of pupils in the ninth grade was well over seventy per cent of those entering the elementary school. But the elimination in the tenth and eleventh grades was so great as to reduce the percentage remaining in the senior class to less than thirty. This is, to be sure, considerably

³ Edward L. Thorndike *Elimination of Pupils from School*. U.S. Bureau of Education Bulletin, 1907, no 4 60 p.

⁴ Elias J. Kline "Significant Changes in the Curve of Elimination Since 1900," *Journal of Educational Research*, 26: 608-16 (April, 1933).

greater than the remnant reported by Thorndike; but Kline seems to have ample warrant for asserting that "efforts to reduce elimination must be concentrated on the tenth and eleventh grades where it is greatest."⁵

There is reason to believe that the usual disparity between enrollments in the lower grades and those in the senior year is rapidly disappearing. For instance, a recent survey indicates that, although enrollments in the last four high-school grades had in general increased by 16.83 per cent between 1930 and 1932, the percentages of increase in each of the four grades had been 9.27, 16.37, 21.29, and 24.38.⁶ It is probable that this trend is not merely temporary, and that the secondary-school population will eventually be distributed much more evenly in the several grade levels of the school.

Sectional differences in secondary-school enrollments. The data heretofore presented are indicative of conditions throughout the nation as a whole. Although they show that striking changes are taking place, they do not apply with accurate weight to particular sections of the country. From some standpoints it is unfortunate that they do not, for there are certain states in which secondary-school enrollments fall far short of the general average for the country as a whole. On the other hand it is encouraging to discover that certain states have already come well within reach of the goal of universal secondary education. These rather amazing contrasts are emphatically indicated in a concise study by Kefauver and Rusk.⁷ These investigators, assuming that the percentage of persons sixteen and seventeen years of age enrolled in secondary schools is a reasonably good measure of the extent to which the secondary school is reaching young people generally, have simply presented these percentages. Although statistics are widely reputed to make dry reading, these percentages are eloquent of the fortunes and the misfortunes of the secondary school in the United States. They amply demonstrate that a youth's prospects of being in a secondary school depend considerably upon his geographic

⁵ Elias J. Kline. "Significant Changes in the Curve of Elimination Since 1900," *Journal of Educational Research*, 26: 608-16 (April, 1933)

⁶ Statistics of State School Systems, 1931-32. Chapter I of the *Biennial Survey of Education in the United States: 1930-32*. U.S. Office of Education Bulletin, 1933, no. 2 (Advance pages), p. 4

⁷ Grayson N. Kefauver and James Rusk. "Variation in Popularization of Secondary Education," *School Review*, 43: 112-18 (February, 1935)

location. Secondary schools in the Far West enroll much larger percentages of the potential population than schools in the Atlantic states or in the South. Young people in cities attend secondary schools in much larger proportions than those in rural areas. The following percentages of enrollment in a few states drawn from the high, middle, and low ranks illustrate at least partially the situation with reference to various sections of the country ⁸

TABLE 2. PERCENTAGES OF PERSONS SIXTEEN AND SEVENTEEN YEARS OLD ATTENDING SCHOOL IN VARIOUS STATES

Rank		1930	1920	1910	Urban Population		Rural Population	
					1930	1920	1930	1920
1	California	82 1	54 7	50 1	85 9	55 4	73 4	53.2
2	Utah	80 9	71 4	58 4	82 6	70 9	79 2	71.9
3	Washington	76 8	54 5	53 7	80 6	55 1	72 6	53 9
23	New York	59 4	32 6	34 7	59 9	30 8	57.1	41 4
24	North Dakota	58 4	53 4	49 4	75 8	61 8	55 5	52 2
25	New Mexico	57 4	50 6	53 7	63 8	52 6	55 4	50 2
46	Georgia ..	43 6	39 7	37 3	48 6	40 2	41 8	39.6
47	Maryland	42 2	31 7	32 1	43 1	28 0	41 0	36.5
48	Rhode Island	40 4	26 3	28 4	40 4	26 0	40 9	39 5

Factors influencing enrollments. With these data at hand it is interesting to consider various factors which are commonly believed to be associated with the popularization of secondary education. The comparative percentages of urban and rural pupils clearly substantiate the common belief that rural secondary schools lag far behind urban schools in attracting pupils. But apparently this is not always the critical factor, for the states which have the largest proportions of pupils enrolled are not those which have the largest urban populations in general; Rhode Island, which has a very high proportion of city folk, has relatively few of its young people in secondary schools. This comparison suggests that the racial or ethnic character of the general population exerts strong influence upon secondary-school enrollments. The states which hold high rank in secondary-school enrollments are noteworthy for the racial homogeneity of their people. This seems to be an important factor in the difference in rank between California and

⁸ Grayson N. Kefauver and James Rusk: "Variation in Popularization of Secondary Education," *School Review*, 43: 112-118, (February, 1935)

Rhode Island.⁹ Those who look upon the secondary school as a necessary contributor to good citizenship must be seriously concerned over the fact that the secondary school is least popular in regions where there are relatively high proportions of people whose families have but recently come to America.

Influence of tradition. Another factor which is associated with regional disparities in secondary-school enrollments is the character of the educational program which is offered in the schools. It is common knowledge that secondary schools in the East are somewhat more conservative than those in the West, emphasizing the classical, academic, or traditional subjects of instruction. In fact, tradition may be said in general to play a considerable part in determining the character of secondary-school enrollments. Since some sections of the United States had established secondary schools long before other regions were even explored by pioneer trappers and plainsmen, they are naturally influenced to a great extent by traditions which are lacking elsewhere.

The influence of tradition is operative not only in shaping the general character of the curriculum. It also affects popular attitudes with reference to the purpose and place of the secondary school. Hence, it is to be expected that communities which have traditionally looked upon the secondary school as a highly selective institution conferring special privileges upon the already privileged would not lightly and quickly adopt an equalitarian view of the matter. Likewise, the community in which the entire history of the secondary school is limited to the recent period of popular interpretation of democratic education more easily fosters populous secondary schools.

Although these factors, in addition to many others, are very commonly associated with secondary-school attendance, these relationships are not known definitely to be causal. For example, it is difficult to know whether increased popularization of the secondary school is chiefly a cause or a result of changes in its educational program, or whether they are both results of other conditions. Regardless of their precise causal connections, these data show that the attainments and the problems of secondary education in the United States are to a considerable degree

⁹ This relationship between popularization of the secondary school and the ethnic heterogeneity of the population is also supported by numerous studies of the social composition of secondary-school populations and studies of the causes of "failure" in secondary-school courses of instruction

sectional or regional rather than national in character. Politics and economics are apparently by no means the only fields in which sectional disparities are important. The secondary school also is lacking in uniform nationality. This need not be assumed to mean that sectional differences in secondary education are chiefly differences in kind. Very likely they are chiefly differences in amount or degree. Although definite evidence on this point is lacking, it is possible that these regional differences chiefly reflect the fact that progress in secondary education generally follows similar avenues and that schools in some regions progress much more rapidly than those in others.

Sociological studies of the secondary-school population. Thorough and intensive investigations of the sociological characteristics of secondary-school populations have been few. In view of the fact that many educators vociferously affirm that the educational program of the secondary school should be determined by the character of its pupils, it seems odd that there has been so little effort to discover pupils' social backgrounds. Some information concerning the occupational and financial status of the parents of secondary-school pupils has been gathered from time to time in connection with studies of their intelligence.¹⁰ These data have indicated that secondary-school pupils for the most part have been drawn from homes in which the occupations of fathers and their financial condition have been decidedly privileged.

This general selective tendency was substantiated by the notable investigation conducted by Counts.¹¹ He was chiefly concerned with the extent to which the children from various occupational groups are represented in secondary schools and the extent to which they remain in secondary school after they have succeeded in getting into it. He discovered that in 1920 the children of fathers who worked as proprietors, professional folk, and managers were much better represented in secondary schools than the children of common laborers and others engaged in relatively ordinary and humble callings. Furthermore, among those children who entered the secondary school, the children from economically privileged homes were much more likely than their

¹⁰ For example, see William F. Book, *The Intelligence of High-School Seniors* (New York: The Macmillan Co., 1922) 371 p.; Stephen S. Colvin and Andrew H. MacPhail, *Intelligence of Seniors in the High Schools of Massachusetts*. U.S. Bureau of Education Bulletin, 1924, no. 9 39 p.

¹¹ George Sylvester Counts, *The Selective Character of American Secondary Education* (Supplementary Educational Monographs, no. 19). Chicago: University of Chicago Press, 1922 162 p.

other schoolmates to remain in school until the senior year. Although Counts assumed that some improvement had taken place during the forty years preceding his investigation, his report emphasized the fact that a child's opportunities for secondary education were roughly proportional to the occupational and economic level of his parents.

Almost ten years later Wessel found that, though economic distribution of pupils had improved somewhat, occupational and ethnic backgrounds still operated strongly in the selection of secondary-school pupils in a Pennsylvania city.²² And in 1930, as a phase of the National Survey, effort was made to repeat a part of the investigation by Counts in order to see what changes had come about during the ten-year interval.²³ Closely following the procedure used in the earlier study, the investigators discovered that in two large cities the number of high-school pupils from almost every occupational group had increased considerably. But, surprising enough, the relative predominance of the children from the higher level occupations had actually increased in one of the two cities during the ten-year period. In the other city the disparity between the higher and lower occupational groups had decreased somewhat. The following data (Table 3), taken from the National Survey study, have reference to the occupational representation of high-school pupils in Seattle, Washington, and Bridgeport, Connecticut. They indicate the number of high-school pupils from each occupational group for every 1000 men over forty-five years of age in the same occupational group.²⁴

Obviously young people from all occupational groups are greatly increasing their membership in the secondary school, and the decreased disadvantage of the pupils from the lower occupational groups in Bridgeport is to be expected. However, a contrary trend in Seattle is puzzling, to say the least. In view of the fact that Kefauver and Rusk show that cities in the state of Washington enroll over eighty per cent of all persons sixteen and seventeen years of age, there would seem to be little likelihood that any considerable number of persons from any occupational group are not included in the secondary schools.²⁵ It is

²² Herman M. Wessel *The Secondary School Population in Some of Its Social and Economic Relationships*. A Study of the Secondary School Population Enrolled in the Public Schools of Cheltenham Township, Pennsylvania. Philadelphia: The University of Pennsylvania, 1930 154 p

²³ Grayson N. Kefauver and others *Op cit*, *passim*

²⁴ *Ibid*, p. 13

²⁵ *Op cit*

TABLE 3 CHANGES IN ENROLLMENT OF SEATTLE AND BRIDGEPORT SECONDARY SCHOOLS (1920-1930) BY OCCUPATIONAL GROUPS

Occupational Group	Seattle			Bridgeport		
	1920	1930	Increase	1920	1930	Increase
Proprietors .	382	534	152	523	590	67
Professional	301	413	112	299	270	29*
Managerial	623	937	314	580	963	383
Commercial	158	277	119	239	325	86*
Clerical	157	274	117	160	181	21
Building trades	162	312	150	116	203	87
Machine trades	169	293	124	192	357	165
Printing trades	310	346	36	115	151	36
Miscellaneous trades	38	177	139	56	228	162
Transportation .	112	263	151	127	308	171
Public service .	108	262	154	120	309	189
Personal service	40	138	98	90	98	8
Miners, lumber workers, and fishermen	92	191	99	—	143	—
Labor	19	92	73	21	154	133
All occupations	166	322	156	171	308	137
1. Average number of pupils per 1000 men 45 and over in proprietors, professional, managerial, commercial, and clerical groups	303	452	149	375	485	110
2. Average number of pupils per 1000 men 45 and over in the building, machine, printing, miscellaneous trades, transportation, public and personal service, miners, lumber workers, fishermen, and common-labor groups . .	91	215	124	93	232	139
Differences between the upper (1) and the lower (2) groups ..	212	237	25	282	253	29*
* Decrease						

therefore difficult to understand why there should actually be an increased disparity in favor of pupils from the higher occupational groups.

In 1933 Jordan reported the results of a comprehensive investigation of the populations of secondary schools in eleven cities in the South.¹⁶ This investigation, which deals solely with white pupils, indicates that in these cities the secondary-school population is still very largely made up of persons whose fathers are engaged in proprietary, professional, and managerial occupations. This general condition appears

¹⁶ Floyd Jordan *The Social Composition of the Secondary Schools of the Southern States*. (Contributions to Education, no 108) Nashville George Peabody College for Teachers, 1933. 101 p.

to be in harmony with the fact that the secondary schools in this part of the country have not yet enrolled the majority of their potential pupil populations.

Educational implications. From a national viewpoint it becomes increasingly apparent that the secondary school is destined to become a common school. Whereas the high school was once a highly selective institution offering extraordinary opportunities to a small proportion of the young people of America, it now ministers directly to all classes and types of youth. For this reason alone the secondary school is under greater obligation to provide the best possible kind of education. Of course, this obligation has always existed, and it is presumed that a secondary school ought to be an excellent school no matter how few its pupils may be. But the extent of the school's influence is now tremendously increased. Both the deficiencies and the strengths of its educational program are inevitably reflected as defects or virtues in our national life. As long as secondary-school education was a relatively small enterprise its sponsors and directors could more easily extenuate its lacks. Moreover, because of its numerical unimportance, secondary-school people were not stimulated to attain a high sense of obligation and purpose. Secondary education at best was then scarcely more than a little eddy in the current of our national life. Secondary education at present, however, is at least strategically situated to exert tremendous influence upon the direction and quality of American life. It is by no means clear that secondary-school people fully appreciate the possibilities and the responsibilities inherent in the expansion of secondary-school populations. Educators are commonly said to be unduly devoted to academic tradition, resisting change until it is unavoidably forced upon them. Even if this accusation is merited, vast growth of the secondary school will inevitably bring about many modifications in its educational program. If, on the other hand, educators are as intelligent and responsible as we should like to think that they are, clearly they now have an unprecedented opportunity for widespread service. It would be hard to conceive of any more challenging and inspiring opportunity than that which now confronts the secondary school.

Need of a more balanced and generous program. A further inference which can scarcely be ignored is the fact that the secondary school may need to offer a much more generous and balanced educa-

tional program than was formerly necessary. In the past its pupils have come chiefly from homes in which the cultural interests and attitudes of the family were more or less similar to those with which the school was concerned. In fact, it may fairly be said that the program of the school merely supplemented and attempted to extend or strengthen tendencies which were already characteristic of the home. This situation had two very important aspects.

In the first place, the school was under no particular obligation to offer a complete education. That is, no great damage would be done if the educational program of the secondary school emphasized certain avenues of interest and insight, and neglected others, for it could ordinarily be expected that what the school neglected would be supplied by the home environment and other educative influences provided by parents. Thus the secondary school might gradually and reasonably adopt the practice of offering a somewhat partial and incomplete program. But at present large numbers of pupils come from homes the material and human resources of which are woefully inadequate to make up for the school's partialities and neglects. Thus some of the matters which the school has been accustomed to emphasize might be looked upon as no more than very edifying extras, special accomplishments with which to embellish the basic essentials which have presumably been obtained elsewhere. For example, American young people who have previously attended secondary schools have devoted much time to the nominal attempt to acquire speaking acquaintance with foreign languages — something which was not ordinarily a part of the home environment either before getting the training or afterwards. In the same way considerable attention has been given in school to the study of ancient civilizations and classics and to phases of mathematics which seem to have no identifiable place in the cultural environment of the home. Presumably the normal environment of the home would foster interest and insight concerning matters of basic importance. Whether or not these presumptions and emphases were entirely reasonable in the case of the pupil who was once the characteristic recipient of the secondary school's services, they appear to be slightly fantastic when they are applied also to large numbers of pupils who are now enrolled in secondary schools. Even if the children of doctors and lawyers and merchants and chiefs may be assumed to have been so well informed concerning the vital

and complex immediacies of contemporary life that they may well afford to spend their time in school embroidering these fundamentals with remote and whimsical specialties, the children of the butcher, the baker, the candlestick-maker are somewhat differently situated — to say nothing of the offspring of miscellaneous rich men, poor men, beggar men, and thieves.

Educational problems and difficulties are increased. In the second place, regardless of the partiality or the comprehensiveness of the educational program, the task of the secondary school has become much more difficult as a result of the types of home background which are increasingly represented among its pupils. Formerly the school ordinarily had only to build upon interests and abilities which were essential elements in family life. Most pupils came from homes somewhat comparable to those of secondary-school teachers themselves, so that they rather naturally accepted the requirements and expectations of the school authorities. Neither the teachers nor the pupils were burdened with the need for much adaptation. Whenever the persons involved were disposed to make reasonable effort to conform to requirements, which were usually more or less taken for granted by everyone concerned, the results were happy. It is easy to see that many of the young people who have been accepted for membership in the secondary school today are of a very different sort. Physically, they appear to live in the same world as their scholastic predecessors, but culturally, intellectually, and spiritually they may have little in common. Very frequently these newcomers to the secondary school come from homes where the common American vernacular is seldom used. The use of books is unfamiliar, and other cultural media which are common characteristics of the homes of traditional types of secondary-school pupils are almost unknown. Moreover, the basic ideals which give character to the home and which influence the attitudes of the child are in many cases quite different from those which were formerly prevalent among pupils in schools.

To what extent these changes in backgrounds and attitudes have actually progressed is not definitely known, but anyone who is in a position to observe them carefully will have no doubt that they are considerable. Obviously, the secondary school cannot avoid the responsibility for adapting its program to meet the needs and the limitations of those whom it accepts as pupils. Presumably an educa-

tional program which was more or less suitable for former pupils is unlikely to be suited to many who are now in secondary schools.

Changing conceptions of the significance of adolescence. Although the increases in the gross size of the secondary-school population and in the relative proportions of young people who are enrolled in schools are in themselves valid bases for inference concerning the school's purposes and program, direct attention should be given also to the personal characteristics of these young people. For many years it has been customary in considering the secondary school to assign much significance to the personal phenomena of adolescence, as such. The general supposition was that the years during which physiological maturation occurs are times of storm and stress, that the individual's tendencies and talents are then greatly stimulated, and that the adolescent is peculiarly something which he has never been before and something which, it was fervently hoped, he will never be again. Accordingly it was assumed that secondary education should be something correspondingly peculiar, and treatises on secondary education presented in considerable statistical detail facts with reference to the anatomic evidences of the physiological development of boys and girls in secondary schools. In spite of these assumptions and exhibits the secondary-school program continued to be very much as it had been before adolescence had loomed so large in educational theory. For eventually it came to be realized that adolescence was not a uniform physiological characteristic of secondary-school pupils, and that even if it were, its educational importance had been greatly exaggerated. However, in spite of the fact that it would not greatly improve a teacher's instruction if he were to know which of his pupils were "prepubescent, pubescent, or post-pubescent," this emphasis upon investigation of the personal characteristics of pupils was very useful in stimulating further search for more fruitful facts.

Systematic investigations of such facts have dealt chiefly with the scholastic abilities, interests, and success of pupils in school, and some of the typical findings will be considered subsequently. There are, however, other changes in our conceptions of adolescence which deserve mention. Of utmost importance is the fact that the period of adolescence is not where it used to be. Time was when the average boy or girl arrived at puberty many concurrent disturbances took place in his life. At about the time of his sexual maturation he was likely to

break off formal schooling, to get a job, to cast away home ties, and to begin to make new contacts with individuals and institutions. These several transitions were not only more concurrent, but also more abrupt than they now are. In thinking that the period of physical maturation is now not such a time of storm and stress as it was formerly we are not discarding a misapprehension so much as noting a changing phenomenon. Physiologically, adolescence has remained where it was, but in its economic, vocational, filial, and social aspects it has shifted markedly to later years. What were once the problems of "adolescence" now become the problems of youth.

Prolonged attendance of youth in school greatly augments the school's task. The acute difficulties formerly produced in boys and girls confronted with many transitions have been somewhat relaxed. These disturbances have, however, been replaced by tensions arising when young people who feel themselves ready to take their places in out-of-school life see fewer places awaiting them. The postponement of opportunities wherein youth may actively and directly participate in the vital and necessary activities of the out-of-school world tends to weaken personal morale and to thwart the normal development of responsible and productive character. Unless the secondary school provides opportunities for convincingly tangible and productive action, it is likely to make some young people unhappy and others complacent.

The changed character of adolescence also implies that the school is under increased obligation to see that its pupils are not intellectually aloof from the world of everyday affairs. The boy who formerly left school early to grapple as best he could with the problems of life may have got a very narrow or distorted view of them, but he was at least forced to give some attention to them and was stimulated to try to understand them. The boy who remains in school obligates the school to do no less well by him. The prolongation of schooling in itself requires a corresponding concern for increasing youth's intelligent interest in the world in which he will later directly participate.

Particularly in localities in which almost all young people are members of secondary schools, the need for strengthening the educational program is an immediate and urgent necessity. Even in sections of the country which have not thus far experienced marked increases in secondary-school enrollments it is to be anticipated that similar need

will increasingly exist. These considerations suggest that there is ample warrant for critical examination of the character and effectiveness of the secondary school's educational program, and for vigorous effort to remedy deficiencies which such examination may disclose.

SECONDARY-SCHOOL PUPILS: INTERESTS

Educators commonly ascribe to pupils' interests high importance in determining the character or effectiveness of the secondary-school program. Even if one is disposed to assume that interests are more significant as outcomes of education than as its well-springs, it is pertinent to reflect upon the existent interests of pupils. It must be admitted at the outset, however, that facts with reference to interest are not easy to handle. The term "interest" commonly denotes a variety of things. It may be inclusive of ephemeral and insubstantial whims and fancies; or it may have reference to fundamental and highly stable drives for a life's endeavor. It may designate a customary realm of wishful dreaming; or it may be the vantage ground of vigorous action and achievement. Any or all of these things it may mean, and more.

Inadequacy of data concerning interests. Furthermore, relatively few systematically obtained facts about interests are now available. Preliminary investigations are being made. Techniques and devices for the reliable discovery of interests are being developed, but whether any of them will ultimately be as successful in revealing interests as the achievements of Binet and his successors have been in illuminating the character of mental ability, we do not know. The fact is reasonably clear that, at least in comparison with what we mean by intelligence, interests are relatively specific, somewhat as knowledge is. Hence, there must be very extensive and detailed examination of particular interests before we shall be able to arrive at very dependable generalizations with reference to them.

Vocational preferences and ambitions. Interest in a job looms large in the minds of secondary-school pupils. So great is this interest that it determines whether large numbers of boys and girls will remain in school. The Regents' Inquiry shows that a majority, both of those who plan to stay in school and of those who plan to leave, would change their plans if the change would improve their vocational opportuni-

ties.¹⁷ The National Survey shows that the desire to prepare for a particular vocation is the reason most frequently given by pupils for the choice of their curriculums.¹⁸ It is to be expected that this interest would be prevalent among industrial arts pupils in technical high schools, as it is in the majority of instances, but, significantly, almost one-third of the pupils taking general courses ascribe chief importance to it. Rather naturally the vocational preferences and ambitions of pupils have attracted the attention of numerous investigators. The National Survey shows the professed occupational plans of some thirteen thousand secondary-school boys and girls.¹⁹ Almost thirty per cent of these young people claim to have no definite plans. Of the boys, about one-fourth plan to enter the professions, and approximately the same number propose to go into trades. Of the small remainder, the majority hope to engage in commercial and clerical occupations and in transportation. Less than one per cent expect to engage in occupations as owners, managers, home-makers (!), laborers, or in public service or personal service respectively. Almost thirty-five per cent of the girls plan to become clerical workers, the professions are goals of some twenty-three per cent; and almost ten per cent plan upon personal service. None of the girls expect to become laborers. Obviously these plans are not in harmony with the possible opportunities in vocational life.

Contrast between "supply" and "demand" in vocations. This investigation is but one of many which have demonstrated that the stated preferences and expectations of secondary-school pupils are disproportionate to the usual distribution of gainfully employed adults in various occupations. For example, Failor, considering the occupational choices of some five hundred boys between fourteen and nineteen years of age, contrasts the numbers of boys choosing various occupations with the numbers of gainfully employed persons ordinarily participating in them.²⁰ Assuming that the number of boys choosing an occupation represents "supply" and that the numbers of workers

¹⁷ Francis T. Spaulding *High School and Life*. The Regents' Inquiry. New York: McGraw-Hill Book Company, 1938, p. 37.

¹⁸ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake *The Horizontal Organization of Secondary Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monograph no. 2, p. 166.

¹⁹ *Ibid.*, pp. 171 ff.

²⁰ C. W. Failor: "Vocational Supply and Demand in Occupations Most Frequently Chosen by Senior Boys," *Vocational Guidance Magazine*, 11: 209-11 (February, 1933).

in a typical group of gainfully employed persons represents "demand," Failor shows ratios of supply and demand for certain occupations thus:

Occupational Group	Ratio of Supply to Demand	Occupational Group	Ratio of Supply to Demand
Engineers	11 9	Civil service	5 4
Teachers	9 1	Musicians	6 6
Retail dealers	6	Mechanics . . . . .	.7
Farmers	2	Electric work	1.6
Aviators	130 0	Chemists	9.2
Lawyers.	5 9	Artists.	11.0
Physicians	5 8	Salesmen . . . . .	.2
Journalists.. . . .	20 9	All others.. . . .	.02
Stenographers	23 3		

It is obvious that many of the young people who propose to become engineers, aviators, journalists, stenographers, and artists cannot normally be absorbed into these vocations. Comparable findings are reported by Cowen, who investigated the occupational ambitions of more than two thousand high-school pupils in New York villages.²² The numbers of pupils desiring certain occupations were contrasted with the numbers of high-school graduates actually engaged in these occupations in the communities concerned. In general there is very little similarity between the pupils' ambitions and the probable opportunities for them. For example, the number of pupils hoping to enter the professions is more than three times as large as the contemporary representation in the professions warrants. Whether these somewhat fantastic expectations are due chiefly to pupils' ignorance of the realities of American vocational life or whether they reflect the willingness of youth to hope for more than there is any reason to expect, they certainly provide a very weak foundation upon which to develop an educational program for the secondary school.

Permanence of vocational interests. It is pertinent not only to consider the nature of these vocational interests, but also to take into account their permanence or persistence. Current opinions among those interested in this matter are somewhat conflicting. For example, Franklin, who studied the persistence of vocational interests among pupils in the junior high school, assigns considerable importance to

²² Philip A. Cowen: "How They Make a Living," *New York State Education*, 17: 807-09 (May, 1930).

the permanence of these interests.²² He found that two-thirds of these pupils retained the same vocational interests for at least one year. To some persons this may, or may not, seem to represent notable persistence of vocational interests. However, specialists in these matters strongly disparage the notion that vocational interests are significantly permanent. For example, Lehman and Witty, having investigated the preferences of some twenty-six thousand boys and girls from eight and one-half to eighteen and one-half years of age, report that most of the vocational interests of these young people are decidedly changeable.²³ This extensive investigation also demonstrated further that the vocational ambitions of boys and girls are so far out of line with the statistics of actual occupations of gainfully employed adults as to make it inconceivable that they may ever be realized. Many additional investigations are analyzed and evaluated by Fryer.²⁴ The data which he presents seem to validate his inference that, in general, the kinds of evidence now available do not warrant the attempt to predict the vocational interests which a young secondary-school pupil may have a year or more hence. Even if we assume that pupils of relatively high intelligence may also show more valid vocational preferences, it must be remembered that such pupils will generally continue longer in school and that they have less immediate need for secondary-school adaptation to their specific vocational ambitions than is appropriate in the case of less intelligent pupils.

Educational significance of pupils' vocational interests. The unrealistic character and relative instability of pupils' vocational interests suggest that the secondary-school program should not be expected to conform to such interests specifically. It would be a futile waste of human energy and a tragic betrayal of the confidence of youth in the intelligence and benevolence of school people if many of those who expect to become engineers, aviators, journalists, architects, or bankers were even tacitly encouraged to do so.

However, it is possible that the vocational interests of pupils are

²² Edward Earle Franklin. *The Permanence of Vocational Interests of Junior High School Pupils*. The Johns Hopkins University Studies in Education no 8 Baltimore The Johns Hopkins Press, 1924. 63 p

²³ Harvey C. Lehman and Paul A. Witty. "One More Study of the Permanence of Interests," *Journal of Educational Psychology*, 22: 481-91 (October, 1931)

²⁴ Douglas Fryer *The Measurement of Interests in Relation to Human Adjustment*. New York Henry Holt & Co., 1931. 488 p

very significant, if they are considered from a different viewpoint. Obviously vocational interest is one of the most vital and urgent concerns of secondary-school pupils. There is little need to seek statistical evidence of the generally observable fact that large proportions of secondary-school pupils hope that the secondary school will greatly help them to achieve their vocational ambitions. Even though the school should not blindly accept and foster many of these questionable expectations, it should put pupils in the possession of insights concerning the character of contemporary vocational life and the relationship of their own personal potentialities to occupational opportunities. Indeed, it seems entirely reasonable that the school should provide for its pupils instruction concerning occupational life in order to help eradicate the unwise expectations and vocational preferences of many of them.

The secondary school probably merits criticism not only for its failure to provide pupils with adequate information concerning the character and significance of vocational life in contemporary American culture, but also for the rather prevalent tendency to emphasize the questionable economic or financial profits from schooling. Not infrequently the pupil who asks his teacher why he should study a particular subject is told that he may later expect to receive financial reward for his diligence in studying it. Even though it were demonstrable that the typical secondary-school pupil later received monetary returns for his investment of time and effort in learning to write coherent paragraphs or to manipulate algebraic symbols or to recount the tribulations and grievances of his colonial forebears, it is unnecessary and unfortunate to stress the dollar sign unduly. The pupil can scarcely be blamed for his lack of perspective concerning the relative importance of pecuniary possessions and the many intellectual and spiritual attainments which also enrich and strengthen human life. The school unjustly trifles with the misapprehensions of youth if it narrowly emphasizes somewhat unpredictable economic rewards at the expense of other values. To what extent the secondary school actually merits criticism in these respects is somewhat uncertain. Some may wish to believe that the tendency of pupils frequently to change their vocational preferences is in itself a creditable result of the influence of the secondary school in helping pupils to appreciate the inappropriateness of their earlier ambitions. Others may be less optimistic.

Regardless of the interpretations which may be placed upon them,

the vocational interests of secondary-school pupils are apparently very often irrelevant to occupational opportunities. Furthermore, it is questionable whether they are sufficiently stable to afford sound bases for the direct development of the school's educational program, even if they were valid.

Scholastic attitudes and expectations. No statistical surveys are needed to demonstrate the simple fact that pupils like some phases of their schooling and dislike others. But it may be desirable to know somewhat more definitely the typical reactions of pupils to specific aspects of the educational program. Adams reports the responses of pupils in seventy high schools in Kentucky to various questions concerning their curricular preferences.²⁵ Latin and mathematics were most commonly mentioned by pupils who would have certain subjects excluded from the curriculum. In general, pupils gave two reasons for disliking certain subjects; they are too difficult, or they appear to have no value. Among the reasons for liking certain subjects, belief that they would be of value in life, liking for the teacher, and absence of difficulty were very frequently mentioned. Both boys and girls indicated a common desire to have practical subjects and modern languages introduced in schools which lacked them. The judgments of some seven hundred pupils in a Montana high school are indicated in a study by Templeton.²⁶ In this case pupils were asked not to judge subjects in relation to their degree of difficulty or the instructors sponsoring them, but to consider solely their intrinsic worth. In general these pupils assigned more worth to elective subjects than to required subjects and more to practical and vocational subjects than to academic subjects, as might be expected. But advanced shorthand and advanced algebra stand high in the esteem of these pupils, while history and farm mechanics are ranked at the low end of the scale. On the basis of ranks assigned to particular courses of instruction and training the several departments of the educational program are ranked thus:

- | | |
|--------------------|-------------------|
| 1. Commercial | 6. Manual Arts |
| 2. Mathematics | 7. Home Economics |
| 3. Latin | 8. Science |
| 4. Normal Training | 9. Social Studies |
| 5. English | |

²⁵ Jesse E. Adams "Reactions of High-School Students to High-School Subjects," *School Review*, 35: 354-62, 417-27 (May, June, 1927).

²⁶ Payne Templeton "A Study of Pupil Preferences," *School Review*, 38:532-37 (September, 1930)

These ratings are obviously not in harmony with those of the pupils in Kentucky. It scarcely seems possible that the geographic and climatic differences between Montana and Kentucky should produce so much disparity in the curricular preferences of secondary-school pupils.

The preferred subjects of some 4600 boys and girls in New York high schools are reported by Coxe and Cornell.²⁷ In general the subjects designated by some pupils as being most interesting were also designated by comparable numbers of pupils as being most uninteresting. For example, linguistic studies proved most interesting to about twenty per cent of the boys and thirty-five per cent of the girls. However, approximately thirty-six per cent of the boys and twenty-two per cent of the girls reported linguistic studies as being most uninteresting. In other subjects the contrasting attitudes of pupils were not so evenly balanced, but the data scarcely warrant any clear-cut generalizations concerning the interesting qualities of various subjects of instruction.

It is to be expected that secondary-school pupils would have diverse opinions concerning the values of various subjects of instruction. In the first place, pupils undoubtedly judge these subjects from a variety of viewpoints. For example, a study by Gould and Davis shows that pupils give many different reasons for choosing certain subjects.²⁸ They mention such matters as assumed vocational values, advice of parents and friends, expectation of getting desired marks, traditional reputation of the subject, or the personality of the teacher. Furthermore, they lose interest in subjects for similarly varied reasons. Reports indicate that pupils very commonly lose interest in certain subjects not only because the subject matter itself seems unsatisfactory for any of several reasons, but also because of the boresome and inadequate character of methods of instruction and the personal characteristics of teachers.²⁹ Incidentally it is significant also that almost one-third of these students never regained a subject interest once lost or took further work in it.

²⁷ Warren W. Coxe and Ethel L. Cornell "Subjects Interesting and Uninteresting to Present High-School Students," *New York State Education*, 18: 690-91 (March, 1931).

²⁸ Silas E. Gould and Robert A. Davis: "Some Reasons Why High-School Pupils Choose Certain Subjects," *School Review*, 37: 602-14 (October, 1929)

²⁹ Florence M. Young: "Causes for Loss of Interest in High-School Subjects as Reported by 651 College Students," *Journal of Educational Research*, 25: 110-15 (February, 1932).

Questionable significance of pupils' preferences. When these various factors are taken into account it becomes quite clear that the opinions of pupils are not necessarily valid indicators of the intrinsic values of secondary-school subjects. A point to be remembered is that the pupil who is asked to decide which subjects are of most worth is at best able to consider only those subjects for which he has been enrolled. Particularly in large schools such judgments are based upon a very partial sampling of the total curriculum. Presumably it would be unwise to interpret the expressed preferences of pupils as having much validity in showing what subjects should be included in the secondary-school curriculum.

Whatever subjects should or should not be included in the curriculum, the attitudes of pupils suggest that the results produced by the educational program of the school fall far short of what is expected. Of course, many of the subjects which pupils come to dislike are offered as electives, and there is undoubtedly some educational value for the pupil in discovering that they are unsuitable for him. But this is a meager profit from the investment of a year's time. Furthermore, the data demonstrate that in many cases the pupil who learns to dislike a subject and to avoid it subsequently is, by his own report, much influenced by the methods of instruction which he encounters or by the personality of his teacher. It is most unfortunate that the unfavorable attitudes of these pupils are determined not by the intrinsic character of their subjects but by the fortuitous influences of modes of instruction or of teachers' personalities. The secondary-school program is apparently offered in the expectation that it will develop among pupils strong and stable interests which will serve as avenues for continuing the development of insight and the enrichment of personal life. Apparently, however, some subjects produce marked dislike more frequently than they develop favorable interests and many others produce favorable attitudes and unfavorable attitudes in approximately equal amounts. This is at least partial evidence that there may be something slightly wrong with the school's educational program.

Pupils' educational expectations. The expectations of pupils concerning further schooling, like their vocational ambitions, are somewhat misplaced. In spite of the widely observable fact that only about one-half of those who enter the secondary school are later

graduated, the National Survey shows that approximately eighty-five per cent of pupils in various types of secondary schools expect to be graduated.³⁰ Pupils have similarly high and unattainable expectations of going on to college and other institutions for further education. Although the numbers of high-school graduates entering colleges have increased remarkably, the relative proportions have not changed greatly. During each of the years since 1921 approximately one-third of high-school graduates have continued their education in colleges and universities.

Miscellaneous interests. In spite of the common assumption that the characteristics of pupils should be important factors in determining the nature of their education, and in spite of the fact that research on such a subject is held in high esteem by educators there is a great dearth of evidence concerning many sorts of pupil interests. More is known, perhaps, about the reading interests of young people than other interests, and on the whole the available evidence does not seem to flatter the secondary school. Although there is some reason to believe that pupils' voluntary reading shows some growth of intellectual interests as they progress through the secondary school, relatively few pupils show much interest in reading about subjects ordinarily presented in the secondary-school curriculum. The same tendencies appear to be characteristic of adults, many of whom have presumably been exposed to the services of the secondary school.³¹ Wessel, whose study of approximately one thousand secondary-school pupils is exceptional for its comprehensive character, states that "a surprisingly small number, only one-third of the pupils, availed themselves of public library cards," and "attendance at movies of doubtful character seems to have been their chief source of recreation."³² These

³⁰ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake. *Op cit.*, pp. 167 ff.

³¹ For relatively accurate and comprehensive analyses of the reading interests of youths and adults, see:

Children's Reading: A Study of the Voluntary Reading of Boys and Girls in the United States. Report of the Subcommittee on Reading, Carl H. Milam, Chairman. Section III, Education and Training, White House Conference on Child Health and Protection. New York: Century Co., 1932. 90 p.

William S. Gray and Ruth Munroe. *The Reading Interests and Habits of Adults.* New York: The Macmillan Co., 1929. 305 p.

Lewis M. Terman and Margaret Lima. *Children's Reading.* Second edition. New York: D. Appleton & Co., 1931. 422 p.

Douglas Waples and Ralph W. Tyler. *What People Want to Read About.* Chicago: American Library Association and the University of Chicago Press, 1931. 312 p.

³² Herman M. Wessel. *The Secondary School Population in Some of Its Social and Eco-*

facts suggest that the sorts of interests which are implied by the content of the secondary-school curriculum do not become dynamic motives in the lives of its pupils. Whether this failure is due to the content of the curriculum or to other influences the meager facts about pupils' interests do not show us, but they lend further support to the presumption that the educational program of the school needs to be improved.

Educational implications. From all indications the interests of secondary-school pupils would seem to have more significance as a possible field for future research than as a substantial base from which to apply leverage to the secondary-school program. If eventually full and dependable facts concerning the character of pupils' interests become available, it may be highly desirable to assign much importance to them in forecasting needed changes in the educational program or in evaluating its outcomes. For the present, methods of investigating interests are presumably in their early stages of development. Questionnaires and check-lists are commonly employed by investigators. Although it is perhaps creditable that investigators have tried to find out as much as possible through the only means at their disposal, obviously similar methods would be looked upon as very unsatisfactory instruments for the discovery of the knowledge which pupils have, or their intelligence. It is possible, for example, that the glaring disparities in pupils' expressed preferences for various subjects of instruction are due to deficiencies in common methods of investigating them. Until more adequate data concerning the character of pupils' interests have been produced through the application of reliable devices and methods of investigation, attempts to formulate or evaluate an educational program in relation to pupils' interests are unavoidably hazy and uncertain.

There is reason to believe that the interests of pupils are exceedingly important. The character of a pupil's interests may greatly facilitate or interfere with the school's effort to educate him, and the kinds of interests which have been produced through his educational experience are important evidences of the value and effectiveness of his education. Hence, it is desirable that there be thoroughgoing effort to disclose the actual character of the various interests of pupils.

nomie Relationships. A Study of the Secondary School Population Enrolled in the Public Schools of Cheltenham Township, Pennsylvania Philadelphia The University of Pennsylvania, 1930. 154 p

SECONDARY-SCHOOL PUPILS: ABILITIES

The tendency of the secondary-school population to include increasingly large proportions of the young people of America and the resulting increase in the diversities among pupils have urgently drawn attention to the personal abilities of pupils. Indeed, some educators have been so much impressed by this heterogeneity as to recommend that the abilities of pupils should be major determinants of the character of the educational program. For example, the Associated Academic Principals of the State of New York have formally approved the thesis that "Subject matter taught in secondary schools should be determined by the needs of society and by individual abilities and interests."³³ Whether or not the abilities and interests of secondary-school pupils should be assigned equal rank with the needs of society as fundamental determinants of the purposes of education, it is obvious that the personal abilities of pupils inevitably influence the immediate character of the educational process. Regardless of its objectives, the education of the meagerly talented is necessarily limited as compared with that of the highly talented pupil. Hence, before attempting to consider the quality and effectiveness of the educational program, the abilities of secondary-school pupils must be taken into account.

At present there is a considerable body of fact with reference to the intelligence of secondary-school pupils. Evidence concerning special aptitudes other than those suggested by the term intelligence, and (as has already been pointed out) facts with reference to the interests of secondary-school pupils, are much less substantial. But there is enough evidence concerning the differential distribution of intelligence among secondary-school pupils and enough knowledge of its significance in relation to the educative process to suggest that its application to the problems of the secondary school is highly important.

Intelligence of high-school pupils. Book's investigation of the intelligence of seniors in the high schools of Indiana is one of the most thorough which has thus far been attempted.³⁴ Space does not permit detailed recital of its many highly significant findings. In general Book's evidence shows that the secondary school has been strikingly

³³ Frank M. Edson and others *Summary Report of the Committee on Secondary School Problems*. Supplement to the Proceedings of the 75th Annual Meeting of the Associated Academic Principals of New York, 1932, p. 10.

³⁴ William F. Book: *The Intelligence of High-School Seniors*. New York: The Macmillan Co., 1922. 371 p.

ill-suited to the mental abilities of its pupils. For example, although some pupils of mediocre and inferior mental ability had been selected for acceleration, none of the pupils with the highest intelligence had been so recognized. Although boys were generally somewhat superior in mental ability to girls, girls were more successful than boys in meeting the expectations of their teachers. With reference to the degrees of their intelligence, high-school pupils were found to be a selected group, but it was apparent that the high schools were doing relatively little to discover and capitalize individual differences in mental ability.

Book's report concerning the selected character of intelligence among high-school seniors is in harmony with the findings of many other studies. Terman in 1919 showed that the median I.Q. of about one hundred pupils entering California high schools was 105.³⁵ In 1925 Proctor reported the median I.Q. of a comparable group of high-school pupils as being 106.³⁶ At about the same time Odell found that the mean I.Q. of some twelve thousand seniors in the high schools of Illinois was 103.³⁷ Wessel's study of secondary-school pupils in Cheltenham Township, Pennsylvania, indicates that the median I.Q.'s for the several grade levels of the four-year high school range between 107 and 110.³⁸ In this school system the I.Q.'s of individual pupils ranged between 70 and 150. The middle fifty per cent of the boys had I.Q.'s between 95.7 and 111.1, and the middle fifty per cent of the girls, between 97.5 and 115.1. The National Survey in 1932 disclosed the fact that the median I.Q. of some nine thousand pupils in various types of schools was 102, and that, if pupils in trade schools are included, the I.Q. of secondary-school pupils is approximately 100.³⁹

These reports, which are merely representative and by no means

³⁵ Lewis M. Terman *The Intelligence of School Children* Boston: Houghton Mifflin Co., 1919, pp. 80-81.

³⁶ William M. Proctor *Educational and Vocational Guidance* Boston: Houghton Mifflin Co., 1925, pp. 40-41.

³⁷ Charles W. Odell *Conservation of Intelligence in Illinois High Schools* University of Illinois Bulletin, vol. 22, no. 25. Educational Research Bulletin no. 22. Urbana, Illinois: The University of Illinois, 1925. 55 p.

³⁸ Herman M. Wessel *The Secondary School Population in Some of Its Social and Economic Relationships*. A Study of the Secondary School Population Enrolled in the Public Schools of Cheltenham Township, Pennsylvania. Philadelphia: The University of Pennsylvania, 1930. 154 pp.

³⁹ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake *The Secondary-School Population*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monograph no. 4, p. 23.

inclusive of all the data which are available for consideration, indicate that the secondary-school population tends more and more to become an unselected sampling of all levels of intelligence. Of course it is generally recognized that I.Q.'s derived from different intelligence tests are not precisely comparable, and competent authorities are not sure that an I Q of 100 is the actual average of the general population. Nevertheless, it is reasonable to assume that even if secondary-school pupils are not now representative of the proportionate distribution of intelligence in the general population of the United States they very soon will be. This fact has exceedingly important implications in relation to the educational program of the secondary school. Within a score of years the general level of ability among pupils has changed enough to make many aspects of instructional procedure obsolescent and futile. However successfully conventional intelligence tests and the I Q.'s derived from their administration measure the comprehensive abilities of children, they are undoubtedly fairly good measures of the abilities conventionally required for scholastic success. Since the secondary school has accepted responsibility for the education of large numbers of pupils who have relatively low intelligence, or "scholastic aptitude," it is obvious that educational procedures which have been more or less effective heretofore are not likely now to produce equally satisfactory results.

Intelligence and occupational level. During the years in which pupils of modest intellectual talents have come to the secondary school in ever-increasing numbers it has very frequently been assumed that some sort of natural or desirable harmony between a pupil's degree of intelligence and the occupational level for which he was given training would serve fairly well to solve problems related to differences in intelligence. This view was strengthened by widespread publicity concerning the *average* mental levels of persons in different occupations. At the time of the mobilization of an American army for participation in the World War extensive mental testing showed that the average mental abilities of chaplains greatly exceeded the average of hostlers; in general, the mental abilities of physicians were much greater than those of bakers; and engineers were found generally to be more intelligent than teamsters. The rather obvious implication of these facts was supported by studies of the relation of the intelligence of secondary-school pupils to the occupations of their fathers. For example,

Collins studied the intelligence ratings of some ten thousand school children from some three thousand families in relation to paternal occupations.⁴⁰ The mean I.Q.'s of children whose fathers were classified as having professional and managerial occupations were 114.5 and 112.7, while the children of farmers and unskilled laborers had mean I.Q.'s of 99.5 and 94.4, respectively. Only about one per cent of the children from the professional group had I.Q.'s below 70, but more than ten per cent of the children of unskilled laborers were below this level. Stoke also reports considerable relationship between parental occupational level and rank in mental ability; in fact, the efficient of correlation between I.Q.'s and occupational groupings is considerably higher than those between intelligence and height, weight, and anatomic index, respectively.⁴¹ Widespread acquaintance with facts of this sort has encouraged educators to assume that differences in mental ability might satisfactorily be provided for if pupils of relatively low intelligence might be found in the enrollment of so-called practical or vocational courses, while their more talented brethren are instructed in the more traditional academic subjects. In many schools pupils have been arbitrarily classified so as to produce this condition. Hence, it is not surprising that the pupil's level of intelligence is somewhat related to the scholastic respectability of the curriculum in which he is enrolled. For example, administration of intelligence tests to more than three thousand seniors in Massachusetts high schools revealed the fact that the mean test scores of pupils enrolled in classical, academic, college-preparatory, and scientific courses were considerably higher than those of pupils receiving instruction and training in normal-preparatory, general, vocational, and commercial courses.⁴² A more recent study of the intelligence of pupils enrolled in different curricula in one large school system reveals the fact that the average I.Q.'s of pupils in college-preparatory, general, commercial and "Smith-Hughes Shop" courses are 111.3, 96.7, 99.0, and 92.6 respectively.⁴³ Somewhat comparable data concerning the

⁴⁰ J. E. Collins. "Intelligence of School Children and Paternal Occupations," *Journal of Educational Research*, 17: 157-69 (March, 1928).

⁴¹ Stuart M. Stoke. *Occupational Groups and Child Development*. Harvard Monographs in Education no. 8. Cambridge: Harvard University Press, 1927. 92 p.

⁴² Stephen S. Colvin and Andrew H. MacPhail. *Intelligence of Seniors in the High Schools of Massachusetts*. U.S. Bureau of Education Bulletin, 1924, no. 9. 39 p.

⁴³ Richard E. Rutledge and Allen Fowler. "The Changing Senior High School Population and the Curriculum Problem," *School Review*, 40: 109-14 (February, 1932).

median I.Q.'s of pupils enrolled in different schools and curricula are disclosed by the National Survey.⁴⁴ These I.Q.'s are as follows:

Schools and Curricula	Boys	Girls
Comprehensive School:		
General	98 9	101.6
Academic.	105 9	108 2
Scientific	106 1	97.2
Commercial..	100 0	98.9
Fine Arts . . .	101 9	104 3
Industrial Arts..	97 5	—
Household Arts..	—	95.7
General School:		
General ...	107 6	109.5
Academic. .	106 2	109 7
Scientific . . .	108 0	—
Commercial.	103.7	103 5
Fine Arts .	—	102 9
Industrial Arts .	94 6	—
Household Arts	—	93 0
Technical School:		
College Preparatory	.. 114 0	—
Commercial School:		
All curricula	101 8	98 9
Trade School		
All curricula	92 4	89 1

These differences in average ability are considerable, and their relationship to differential curricula indicates that, at least in our larger secondary schools, they are partially provided for.

However, to consider this whole matter solely in terms of average tendencies is somewhat misleading. If we take into account also the range or spread of mental abilities both in relation to the several occupational groups and in relation to the various curricula in which pupils are enrolled, the educational problem is obviously far from solution.

In the first place, further consideration of the data concerning the distribution of intelligence among various occupational groups lends emphasis to the fact that the "higher" occupational groups have no monopoly of the higher levels of intelligence. Neither do persons in the "lower" vocations have exclusive possession of the relatively feeble intellects. Lehman and Stoke have recently demonstrated

⁴⁴ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake. *The Horizontal Organization of Secondary Education* U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monograph no. 2, p. 138.

that at least one-half of the men of superior mental caliber in the army at the time of the World War were drawn from the "non-white-collar occupations" ⁴⁵ Furthermore, the majority of highly talented pupils in school come from the less favored occupational groups. Although it is true that parents in the more favored callings produce more than their proportionate share of talented children, and although parents in more modest occupations are blessed with a disproportionate share of children modestly talented, the majority of highly intelligent persons are to be found among the less favored occupations. This fact alone warrants severe indictment of a system of secondary education in which opportunities for ample schooling are more easily available to the children whose parents are occupationally favored, than to those whose economic and social status is relatively modest.

The extensive overlapping of mental abilities in the several fields of occupational endeavor supports the expectation that there would also be much similarity of ability among pupils in different secondary-school curricula. The National Survey provides relatively little information concerning the ranges of mental ability in various curricular groups. However, it is shown that in various types of schools there is a considerable and somewhat similar range of intelligence quotients. For example, the first quartiles, medians, and third quartiles of I.Q.'s among ninth-grade pupils in different types of schools are as follows: ⁴⁶

Type of School	First Quartile	Median	Third Quartile
Comprehensive .	. 88	97	110
General . . . . .	. 92	103	114
Commercial .	. 92	98	105
Trade (all grades)	. 84	91	100

These figures indicate that the differences among pupils in particular types of schools are very much greater than the differences among scholastic groups. In connection with an extensive study of the ranges of ability among pupils in the secondary schools of New York, Coxé presents some very significant facts concerning the mental

⁴⁵ Harvey C. Lehman and Stuart M. Stoke "Occupational Intelligence in the Army," *American Journal of Sociology*, 36: 15-27, 221-32 (July and September, 1930)

⁴⁶ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake *The Secondary-School Population* U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monograph no. 4, p. 21

abilities of pupils enrolled in various curricula in a single secondary school.⁴⁷ The following table is taken from this study:

TABLE 4. DISTRIBUTION OF INTELLIGENCE QUOTIENTS OF PUPILS IN THREE COURSES OF A SIX-YEAR HIGH SCHOOL

Intelligence Quotient	Academic	Commercial	Industrial	All
60-74	—	—	3	3
75-79	1	5	13	19
80-84	3	10	31	44
85-89	11	25	37	73
90-94	17	56	54	127
95-99	36	79	58	173
100-104	57	76	58	191
105-109	66	71	47	184
110-114	74	50	20	144
115-119	47	28	12	87
120-124	31	18	9	58
125-129	33	7	3	43
130-134	16	6	—	22
135-139	10	2	1	13
140-144	8	3	—	11
145-149	3	2	—	5
150-	3	1	—	4
Total	416	439	346	1201
Medians	111 1	102 86	97 9	104 2
Per cent in lowest quarter	9 4	25 5	43 2	—
Per cent in middle half	43 6	52 4	45 2	—
Per cent in highest quarter	47 0	22 1	11 6	—

Although these data are drawn from a single school, they are approximately what might be expected in any large secondary school, for Coxe reports that among secondary schools generally there is a large range of mental abilities among the pupils at a particular grade level. Specifically, he finds "that the range of the middle fifty per cent of a grade is greater (frequently two times greater) than the difference between the medians of two consecutive grades and that the total range of each grade is from five to ten or more times the difference in medians."⁴⁸ The data which this study presents seem fully to warrant the belief that the conventional offering of academic, commercial and practical arts curricula without differentiating subject matter

⁴⁷ Warren W. Coxe *Levels and Ranges of Ability in New York High Schools*. University of the State of New York Bulletin no. 1001. Albany: The University of the State of New York Press, August 1, 1932. 44 p.

⁴⁸ *Ibid.*, p. 26.

for pupils of different ability within particular school grades and curricula falls far short of adequate provision for differences in mental ability.⁴⁹

Educational significance of mental ability. Reputable authorities are individually uncertain and severally at variance concerning the nature of intelligence. They are by no means certain that the personal qualities or abilities measured by conventional tests of intelligence include all that should be included. These tests are rather generally recognized to place a high premium upon linguistic ability. Indeed, some authorities criticize the tests for their undue emphasis upon the kinds of things which are learned and used in school and their neglect of abilities which are needed elsewhere. Whatever the general significance of these criticisms may be — and there is no reason here to become embroiled in the matter — it is reasonably well established that whatever is measured by intelligence tests is an exceedingly important factor in determining a pupil's success or failure in most kinds of school work. If the tests unduly emphasize linguistic proficiency, possibly the schools also emphasize it more than they should. Very likely both the tests and the school work must eventually be changed somewhat. At any rate, it is apparent that some pupils at all grade levels and in various curricula of the secondary school are very generously equipped with the sort of intelligence which is sometimes criticized as being merely scholastic aptitude. On the other hand, other pupils in all curricula are decidedly deficient in it.

There is reason to believe that some secondary schools already have within their pupil populations at least a representative if not a proportionate sampling of the various levels of mental ability which are normally to be found among young people. Other schools undoubtedly have yet to receive many pupils whose deficiencies in mental ability or scholastic aptitude markedly exceed the mental limitations normally found at present. In both of these situations, presumably, secondary schools have not heretofore made anything like adequate adjustment to the differential abilities of their pupils. Since marked expansion of enrollments is relatively recent, the school may not deserve severe censure for its failure to cope immediately with this problem. However, the problem urgently and increasingly demands

⁴⁹ Various practical possibilities for more adequate adjustment to differences in mental ability are considered in Chapter Fourteen

solution. In fact, it is probably not an exaggeration to say that adequate adjustment to the several levels of mental ability among secondary-school pupils is a paramount necessity.

Other types of ability. That intelligence tests do not comprehensively measure many sorts of abilities which are probably significant in efficient everyday life has already been suggested. There is even considerable likelihood that they do not even measure many types of ability which are essential in scholastic success. Awareness of these limitations has stimulated efforts to make tests which would measure dependably other abilities of one sort or another. For example, attempts have been made to test general aptitudes or more specialized abilities with reference to social intelligence, motor ability, mechanical ability, musical aptitude, linguistic aptitude, mathematical ability, and the emotional or conative aspects of personality. Precise information concerning the character of these abilities and aptitudes would unquestionably be very useful in determining the potentialities of pupils for different sorts of instruction and training. But although substantial progress has been made, these tests have not yet been sufficiently refined and applied to furnish much information concerning the character and amount of these various abilities among secondary-school pupils. In all probability more extensive use of some of the more promising tests of abilities and aptitudes will subsequently supply significant data concerning their actual existence among pupils. For the present the most accessible avenue of information concerning the various and relatively specialized abilities of pupils is the record of the pupils' success and failure in secondary-school subjects. Obviously, a pupil's academic record does not represent purely the influence of his ability or aptitude for a school subject. Many extraneous elements also enter into his degree of achievement, so that his mark in a particular subject is somewhat unreliable in demonstrating an individual's actual ability in relation to it. Nevertheless, it is reasonable to suppose that facts with reference to the academic success and failure of large numbers of pupils in various subjects are at least partially indicative of the extent to which the abilities of pupils are in harmony with the character and requirements of instruction and training ordinarily offered in secondary schools.

SECONDARY-SCHOOL PUPILS: SUCCESS AND FAILURE
IN THE SECONDARY SCHOOL

The marks of grades which pupils receive are admittedly inadequate measures of the attainment of the educational goals of the school. But they are significant for their direct effects upon the pupil and upon the character of the program which he pursues. If the pupil is designated as having "passed" a subject, he is free to continue further in the study of it, if he wishes. But the pupil who has not passed is thereby limited. He may be compelled to make repeated efforts to pass the subjects in which he has been unsuccessful, or he may be excluded from further opportunities. It is rather obvious also that marks have considerable effect upon the morale of the student. Students who have received many failing grades are not likely to be very enthusiastic about the subjects in which they have failed, and in many cases come to hold schooling in low esteem. Not infrequently they become pessimistic and skeptical concerning their own personal worth. These facts warrant careful consideration of the extent to which pupils nominally succeed or fail in their school work.

Moreover, in addition to their direct significance, passing or failing marks indicate the success of the educational program in adjusting to the potentialities and limitations of pupils. In fact it is probable that, in the absence of adequate information about the personal characteristics of pupils and their relationship to the educational program, the percentage of failures in the secondary school will indicate at least partially the extent of educational maladjustment among its pupils.

Factors influencing failure. Large numbers of secondary-school pupils fail in one or more courses, although the percentages of failure are influenced by such factors as geographic location, subjects attempted, the pupil's sex, the character of his home, his grade level, and the sex of his teacher. Wessel found that during a three-year period more than forty-three per cent (more than one-half of the boys and about one-third of the girls) of the secondary-school pupils in a group of over one thousand failed in one or more subjects⁵⁰ Lamson reports that, although they had been much more successful than most

⁵⁰ Herman M. Wessel *The Secondary School Population in Some of Its Social and Economic Relationships: A Study of the Secondary School Population Enrolled in the Public Schools of Cheltenham Township, Pennsylvania* Philadelphia: The University of Pennsylvania, 1930, pp 31 ff.

pupils, almost one-half of a group of highly gifted pupils (with I.Q.'s ranging from 135 to 190) had received one or more failing marks in secondary school.⁵¹ It is a commonly observed fact that girls generally receive higher marks than are given to boys, and there is some reason to believe that both boys and girls are favored in marks by teachers of their own sex. For example, a study of more than 100,000 marks awarded to boys and girls in the secondary schools of one city indicates that men teachers generally give somewhat higher grades to boys than to girls, and that women teachers show even greater tendency to give higher grades to girls than to boys.⁵² These facts are indicative of some of the difficulties encountered by individual pupils in the secondary school, but their significance also largely depends upon the frequency with which pupils generally receive failing marks in secondary-school courses.

Differing amounts of failure in various schools. A study of the distribution of marks in a number of Middle-Western secondary schools is at least partially indicative of general practice in "failing" pupils.⁵³ The report of this study indicates that the percentages of failures in different schools vary greatly. For example, in one school only two per cent of the grades represent failure; in another, over twenty-one per cent. Furthermore, the percentages of failures in different subjects of instruction also vary considerably, and much more failure occurs among freshmen and sophomores than among juniors and seniors. These data are selected from the extensive array of facts presented in this study (Table 5).

When it is taken into account that many pupils who withdraw from courses are judged to be failing at the time of withdrawal it becomes apparent that failure is under present conditions to be expected by considerable proportions of the secondary-school population. To what extent the conditions here indicated are prevalent throughout the country can only be guessed, although there is evidence to demon-

⁵¹ Edna Emma Lamson *A Study of Young Gifted Children in the Senior High School* Teachers College Contribution to Education no. 424. New York Teachers College, Columbia University, 1930 117 p

⁵² Roy O. Billett *Provisions for Individual Differences, Marking, and Promotion*. U. S. Office of Education Bulletin, 1932, no. 17 National Survey of Secondary Education Monograph no. 13, pp. 428-29

⁵³ "Subject Failures by Schools for Semester Ending June, 1929," a report published in *Secondary-School Studies*, Department of Secondary-School Principals Bulletin no. 29 (January, 1930), pp. 13-20

TABLE 5. PERCENTAGES OF FAILURES AND WITHDRAWALS IN VARIOUS SECONDARY-SCHOOL SUBJECTS AND GRADE LEVELS

Subjects and Numbers of Schools	Total Subject Enrollments	Percentage of Subject Failures	Percentage of Subject Failures and Withdrawals
English			
22 schools .	23245	7 3	12 9
Social studies			
19 schools . . .	15984	5 4	11 4
Mathematics			
19 schools .	12655	10 6	17 0
Modern languages			
19 schools	6261	8 0	13 7
Latin			
17 schools .	6007	8 9	12 6
Sciences			
19 schools .	11265	4 8	10 1
Manual arts			
15 schools	5628	3 7	10 1
Home economics			
15 schools .	1942	2 8	6 7
Commercial			
19 schools	11123	5 5	14 5
Art			
12 schools .	1915	1 6	6 9
Total			
19 schools . . .	90056	6 5	12 5
Seniors	7542	2 8	6 7
Juniors . . .	11563	6 6	11 9
Sophomores	15696	8 8	16 8
Freshmen . .	20724	8 6	15 0

strate that in at least one large and populous state — New York — the percentages of failure among secondary-school pupils are considerably higher.

Failures in New York State Regents Examinations. The New York State Education Department publishes annually the percentages of pupils who pass the "Regents Examinations," which are prepared by the State Department and administered in the approved secondary schools throughout the state. The following figures represent the percentages of pupils whose examination papers in various subjects were awarded failing marks in the years 1924, 1929, 1933, and 1938.⁵⁴

⁵⁴ Derived from data prepared by the Examinations and Testing Division and published in the Annual Reports of the Education Department of the University of the State of New York.

TABLE 6. FAILURES ON REGENTS EXAMINATIONS

	1924	1929	1933	1938
English	19 1%	14 1%	11 0%	7 5%
Social studies	19 1	16 7	12 6	8 5
Mathematics	30 1	29 9	25 7	14 7
German	22 0	11 8	17 0	12 4
French	23 4	15 8	11 7	12 2
Spanish	38 1	20 2	19 3	14 3
Italian	24 1	24 9	12 9	8 3
Latin	31 8	27 2	15 7	7 1
Greek	28 4	10 4	19 0	4 8
Science	22 9	15 5	13 8	8 9
Commercial subjects	20 2	29 8	22 8	19 9
Art	12 2	26 5	28 8	19 5
Music	17 0	40.2	19 3	15 3
Comprehensive vocational (Agriculture and home-making)		15 6	8 8	9 5
Total percentage of all subjects	23 0	21.5	17 3	11 5

These figures are not representative of the attainments of all pupils in the secondary schools of New York, for in many schools pupils who are assumed to be failing in their work are not even permitted to attempt these examinations. Presumably, the percentages of failure would be much greater if all pupils took the examinations.

Implications of high percentages of failures. These facts arouse many perplexities. Unless it can be assumed that there is some intrinsic benefit in scholastic failure, the educational program is apparently poorly adapted to large numbers of pupils. The percentage of failures in New York secondary schools is gradually decreasing, which is particularly significant in relation to the recent influx of pupils who are presumably somewhat less competent than their predecessors. However, the amount of academic failure still seems excessive. Not only is this true of general conditions, as they are represented in the percentage failing in all subjects throughout the state; but is also strikingly apparent in certain subjects and in particular schools. It is difficult to imagine any plausible excuse for permitting or requiring large numbers of pupils to undertake certain subjects if even a fifth of them will probably be designated as failures. Furthermore, these figures tell only a part of the story. In certain secondary schools one-half of the pupils sometimes fail to pass these examinations.

Presumably these failures do not often benefit pupils who encounter

them, and in many cases they do considerable harm. Even if their ill effects upon pupils were insignificant, the mere waste of the school's human and material resources which such failures represent is unjustifiable. Regardless of other considerations the failures alone are a strong indictment of the secondary school's educational program.

Educators who have pondered the significance of failures in the secondary school believe that the general problem is by no means a simple one. Furthermore, it is only fair to call attention to some interpretations which in some instances may be at variance with the general position which has been taken thus far. Some competent authorities even assert that there should be more failures in the secondary school than there are. The assumption underlying this contention is that the standards of achievement which schools commonly accept as satisfactory fall far short of the standards which secondary-school graduates must meet if they are to be successful in the out-of-school world. It is sometimes asserted, for example, that pupils who have received scholastic approval of their attainments in certain vocational courses are by no means competent to undertake corresponding tasks in occupational life. Also many pupils of superior potentiality are certified as having done satisfactory work in spite of the fact that their effort has been scant and their attainment far less than their talent makes reasonable. Both objectively and subjectively, then, there seem to be many pupils who have been nominally successful in spite of their very real failures. If these views are valid, they may change the character of the indictment against the secondary-school program, but they do not extenuate it.

Causes of scholastic failure. When pupils who fail in secondary-school courses are asked to tell why they have failed they commonly mention lack of home study, discouragement, insufficient effort, dislike of the teacher, inability to find anything interesting or valuable in the subject, and many other causes.⁵⁵ Teachers give similar testimony, except that they do not ordinarily suggest that they themselves are at fault. They frequently assert that the pupil's inadequate mentality is an important cause of difficulty. Reasons of this sort might be suspected either by pupils or teachers regardless of their knowledge of the actual causes of failure, and they probably appear frequently as

⁵⁵ For example, see C. A. Gardner. "A Study of Causes of High School Failures," *School Review*, 35: 108-12 (February, 1927)

concomitants of scholastic failure. There is evidence to indicate that pupils of relatively high intelligence generally receive higher marks than are given to other pupils irrespective of the amount of time devoted to study.⁵⁶ In fact for pupils of approximately same levels of intelligence the correlations between marks in various subjects and the amount of time spent in study are very low.⁵⁷ Since the pupil's general level of intelligence is beyond the power of the school to change markedly, it is obvious that failures ascribed to deficient intelligence really represent the failure of the school to make sufficient adaptation to the capacities of its pupils. In view of the fact that reasonably adequate means for the measurement of intelligence are available for use, the secondary school can scarcely justify the practice of accepting as pupils those whose low intelligence is ill-suited to cope with this kind of educational program usually presented. Even though the pupil's inherent abilities cannot be changed markedly, there is no intrinsic reason why the educational program of the secondary school may not be changed. A physician may be excused for refusing to accept as a patient one who is demonstrably incurable, but acceptance of a patient implies that the mode of treatment will be adapted to his deficiencies. In much the same way the secondary school's acceptance of a pupil demands that his educational treatment will be suited to his characteristics. To ascribe his scholastic failures to his lack of intelligence is to ascribe willful negligence or incompetence to the secondary school.

Home background as a cause of failure. Intelligence is probably not the major critical factor in producing most of the scholastic failures among secondary-school pupils. Careful examination of numerous studies for the fundamental causes of failure discloses the fact that the character of a pupil's home background is closely related to his success or failure in the secondary school. It is by no means clear that the observable features of the home environment are direct causes of success or failure in the secondary school, but it has been repeatedly demonstrated that the youth whose home is not in harmony with the cultural traditions characteristic of the secondary school suffers a severe handicap in his schooling. Not only is he likely to fail in many

⁵⁶ Hildur C. Osterburg "A Study of the Load of Senior High School Pupils in Los Angeles," *School Review*, 36: 359-69 (May, 1928).

⁵⁷ *Ibid*

courses, but he is also confronted with the prospect of early elimination from school. Of course, what is commonly referred to as the home background of pupils is actually a complex pattern of many elements. Occupational, financial, religious, ethnic, and filial relationships all play their part. The quality and degree of the cultural interest and activities in the life of the family inevitably thwart or foster the youth's progress in school. Under anything like present conditions the school could do little directly to change these conditions in the homes of its pupils, and it is by no means clear that it should attempt to do so even if this were possible. Obviously the youth himself can do relatively little to change the character of his home environment. In fact, as a general rule the youth whose home background is most lacking and undesirable is likely for that very reason to be unable to improve his underprivileged condition. To a considerable extent the attitudes and ambitions of young people, which so markedly influence their scholastic attainments, are the products of their cultural inheritance, very much as intelligence is the result of biological inheritance. If the American secondary school were operating under a strict mandate requiring it to maintain and increase social cleavages and to support aristocratic privileges, its present tendency to offer the sort of program in which a pupil's lack of cultural advantages at home operates to prevent his getting any at school and to classify him as a failure might seem commendable. Actually, in a secondary school which claims to be and is obligated to be democratic, this practice is at least ironically disgraceful. Although the pupil who is made to fail for lack of appropriate home background is personally almost as little able to improve his background as the child whose biological inheritance is a handicap, he is by no means beyond help. Attitudes and interests fortunately can be changed. Possibly the school could do much more than it does to produce these changes. If it cannot produce them sufficiently to carry on its work successfully with its underprivileged pupils, it is under obligation to adapt its program to their deficiencies, just as it may be expected to do in the case of those pupils whom it now accepts and brands as failures because they have not as much native ability as would make their school work easier.

Prospects of increased educational maladjustments. Since the secondary-school population in the past has been predominantly composed of young people whose home backgrounds were favorable to

their scholastic success, it follows that the contemporary trend toward larger secondary-school enrollments will aggravate the problems arising from the disparity between home background and scholastic traditions. Under former conditions the amount of scholastic failure in the secondary school has indicated serious maladjustment of the educational program to the characteristics of many pupils. The prospect that the extent of this maladjustment will be increased emphasizes the importance of critical evaluation of the educational program and forthright effort to improve it.

Some general implications. Perhaps the most striking inference which may be drawn from these considerations concerning secondary-school pupils is a rather obvious fact. We do not know very much about secondary-school pupils. That is, we do not know nearly as much as we should like to know and need to know. This is true, of course, with reference to our fairly well substantiated data concerning them. If we were to consider also the extensive amount of what we think we know, in addition to our factual data, the total might bulk much larger, although it might not weigh any more. It is not intended here completely to derogate a speculative approach. Indeed, in the field of education we should not get very far nor do very wisely if we were to dispense with speculation. But in making these introductory analyses it has seemed best to give attention chiefly to those facts which are reasonably well established by careful, systematic investigation. As has been said, such facts are meager. We need particularly much more investigation which will furnish data of a sociological character concerning young people of secondary-school age. It is only recently that sociological data have been greatly needed, and the development of acceptable techniques for sociological research is still in its infancy.

A most interesting and significant method of studying the personal characteristics and situations of young people is represented in the American Youth Commission's investigation of some thirteen thousand young people in the State of Maryland. These young people between the ages of sixteen and twenty-four were very carefully selected as a thoroughly representative sample and each one was interviewed personally. The report of this investigation demonstrates that large numbers of young people, particularly those who have left school at the lower grade levels, are unemployed without any substantial mode

of using their time profitably, that they are in many instances not well adjusted to the more elementary responsibilities of citizenship, and that they are not so situated as to cope effectively and satisfactorily with the problems which confront them. Although many of them are obviously hindered by lack of encouraging opportunities, they are not even reasonably well equipped to make competent use of opportunities. This study is valuable both in demonstrating the effectiveness of the methods employed in it and in supplying convincing evidence that many youngsters have left our schools inadequately equipped to deal competently with the problems of life ⁵⁸ Although it is not concerned directly with pupils in school, it indicates very definitely that the schooling of these young people has been inadequate

The Regents' Inquiry has produced significant facts concerning the general social competence of boys and girls leaving the high schools of New York.⁵⁹ In making this investigation it was assumed that the primary evidence of the effectiveness of the secondary school should be obtained from careful scrutiny of the young people who are its products. Preparation for citizenship, for further learning, for wholesome recreation, and for vocational life received particular attention in this unusually thorough assessment of the characteristics of boys and girls. These boys and girls had information and interests which show that the secondary schools have been effective in convincing them that schooling is a good thing and that it produces reasonable competence along conventional academic lines. However, it is equally clear that many of these youngsters have not adequately developed the insights and abilities needed to deal competently with the personal problems confronting them or to meet their social obligations as citizens. In general, these young people at the point of leaving school are much better prepared to remain in school than to adjust themselves intelligently to the world outside the school. In view of the fact that the secondary schools in New York appear to be conducting their conventional programs with at least average success, we can hardly escape the inference that the conventional program carried on with reasonable efficiency is not adequate to produce the personal and civic intelligence which young people must have.

⁵⁸ See Howard M. Bell *Youth Tell Their Story: A Study of the Conditions and Attitudes of Young People in Maryland between the Ages of 16 and 24* Washington, D C American Council on Education, 1938 273 p

⁵⁹ See Francis T. Spaulding: *High School and Life*. Report of the Regents' Inquiry New York McGraw-Hill Company, 1938 377 p

These important investigations made by the American Youth Commission and the Regents' Inquiry suggest that we need much more information of a personal sort than we now have. For example, we know too little about what secondary-school pupils know or believe about anything or about the world in general either before they enter the secondary school or after they leave it. Some persons may wish to take exception to this statement, pointing out that thousands of pupils are given standardized tests which measure their memory of detailed facts. This is true, of course, but few students of education seem to have thought it worth while to classify and collate the results of the tests. And knowing what a pupil is able to set down on a test paper fifteen minutes after having scanned his textbook is not necessarily the same thing as knowing what insights he has as relatively permanent and useful personal possessions. Our knowledge of what boys and girls believe about such matters as municipal politics, the inheritance of physical deficiencies, the desirable essentials of patriotism, the practical advantages of honesty in craftsmanship, and a host of similarly important matters is scant. It would be exceedingly helpful to use such knowledge — if we had it — in attempting to evaluate the purposes and the effectiveness of the secondary school. But for the present we must evaluate the secondary school's program with such knowledge as we have available for application to the task, with the best guesses we can make, and with full realization of the inescapable incompleteness of our analysis.

These lacks are balanced somewhat by some fairly satisfactory data. We have reasonably good evidence of the diversity of intelligence or "scholastic aptitude" among secondary-school pupils. And knowing something of its scholastic importance at least, we can consider with some degree of confidence the extent to which the secondary school adapts its educational program to the intellectual potentialities and limitations of its pupils. It is apparent, furthermore, that the cultural interests of young people, as far as they are disclosed by investigations of leisure activities and reading interests, do not reflect any marked and influential benefits from secondary-school instruction. In fact, if we consider collectively the miscellaneous evidence concerning the occupational preferences and expectations, hopes of scholastic success and further schooling, and attitudes toward various subjects of instruction, we can scarcely escape the presumption that pupils in the second-

ary school are frequently ignorant or ill informed concerning many matters which directly concern them and that they are far from pleased with the instruction which they have received in school. If, in addition to these disquieting symptoms, we reflect also upon the considerable proportions of pupils whom the school itself designates as being failures and the somewhat impersonal factors which are often cited as major causes of these failures, it becomes all too obvious that there are serious deficiencies in the secondary school.

It is perhaps to be expected that in the complexities of the educational process the recognition of deficiencies in results will seldom disclose their origins or causes. Certainly the available data concerning secondary-school pupils show little more than the existence of grave defects. They do not indicate whether these defects are related chiefly to the character of the objectives which educators have adopted, the administrative patterns in which the secondary school is organized, the special avenues of educational activity which severally comprise the school's endeavor, or the general pattern in which these special branches are combined to form the educational program as a whole. Moreover, the sources of the school's shortcomings are extensive, occurring here and there in various interrelated phases of secondary education in its entirety. It is, therefore, pertinent, and, if we are convinced of the necessity of adequate secondary education in strengthening a democratic civilization, imperative to examine both the secondary school's purposes and the full scope of its activities.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Prepare graphs or charts which in your judgment indicate as accurately as possible the changes likely to take place in the secondary-school population during the next ten years.
2. Obtain data needed to rank each of the 48 states according to percentages of young people enrolled in secondary schools, and compare this ranking with the states' ranks in per capita wealth, population per square mile, average annual rainfall, year of admission to statehood, average salary of high-school teachers, percentage of native white population, or other factors which may or may not foster school attendance.
3. Some persons believe that an important factor in the extension of educational opportunity to young people is the decreasing proportion of young children in the general population. It is assumed that this permits the

material and human resources of a larger number of adults to be devoted to the benefit of a smaller number of children. Obtain facts concerning trends in the population at various age levels, and consider the validity of this belief.

4. Would it be desirable to try to increase secondary-school attendance on the part of children whose parents have small incomes by providing direct financial assistance? If this seems desirable, what should be done?
5. What are the probable reasons for the disparity between enrollments in rural and urban districts?
6. Obtain facts concerning the trends of enrollments in particular secondary schools in which you are interested. Interpret these facts.
7. Regardless of the "holding power" of the school, it is reasonably certain that trends in secondary-school enrollments are influenced by social and economic changes. Analyze in some detail the changes which in your judgment are likely to influence future trends of enrollment.
8. How do changes in the mere size of secondary schools necessitate or facilitate modifications in the school's educational program?
9. Obtain recent information concerning trends in the sizes of secondary schools throughout the country.
10. From some contemporary secondary school select a group of pupils who would probably have attended a secondary school if they had been born thirty years earlier. Select another group who would in all probability never have seen the inside of a secondary-school building thirty years ago. Compare these two groups with reference to:
 - a. Their need for education
 - b. Society's need for their education
 - c. Their facility in becoming educated
 - d. Their handicaps in becoming educated
11. Current trends in enrollment probably have many implications which have not been mentioned in the preceding chapters. Consider the matter, and formulate other implications which should be taken into account.
12. If secondary education were to be made compulsory for all youth below eighteen years of age, which of the following matters would be most important: increased financial cost, increased employment for teachers, personal advantages for young people, or social profit in terms of the general welfare?
13. Intelligence tests appear to be reasonably satisfactory measures of ability to succeed in school work, but they are very commonly criticized for their emphasis on linguistic and verbal matters. What do these facts jointly suggest concerning instruction in the secondary school?
14. Analyze and contrast various authoritative interpretations of the nature of intelligence.
15. Obtain facts concerning the distribution of various levels of intelligence

among pupils now enrolled in various curricula of a large secondary school. What are the educational implications of these findings?

16. Examine and summarize studies dealing with the discovery or measurement of some type of special aptitude — musical aptitude, for example. Should the typical secondary school regularly make use of special tests of such aptitudes in the effort to discover talent among its pupils?
17. It is generally agreed that there are some persons who, by reason of their lack of ability, are not educable in a conventional secondary school. At what time and by what means should the school attempt to determine whether a pupil has enough ability to justify his admission or retention as a pupil?
18. Examine educational literature dealing with prognosis of success in particular school subjects. What appears to be the best method of making such prediction in the case of the subject in which you are interested?
19. Analyze in some detail several studies of the causes of pupils' failures. Which of these causes are of such character that they might possibly be prevented or avoided by a school? Which are beyond the power of the school to control?
20. Investigate the percentages of failures in various subjects of instruction and at various grade levels of a secondary school. Evaluate the facts thus obtained.
21. Examine and summarize recent evidence concerning the reliability of teachers' judgments as expressed in the marks which they assign to the achievement of their pupils.
22. In some secondary school in which you are interested, make a survey of the attitudes or preferences of pupils in relation to:
 - a. Vocational expectations
 - b. Educational ambitions
 - c. High-school subjects previously studied
23. Make a careful study of the pupils in a secondary school in order to determine in what ways the nature and extent of a pupil's educational opportunities are influenced chiefly by his abilities and needs as an individual or by other factors such as the status of his parents or by certain more or less arbitrary practices on the part of the school itself.
24. Assemble and analyze statements concerning the good and bad effects of failure in school upon the individual pupil. (Such statements can be obtained in educational books and periodicals or from individual teachers.) Work out a method by means of which you can determine as objectively as possible whether or not these statements are confirmed by what actually happens in the life of the pupil who fails in school.
25. Make careful inquiry to discover the secondary school in your vicinity which does the best job of finding out as much as possible about the in-

dividual characteristics of its pupils. Visit it to learn what information it has, how it gets it, and what use it makes of it. Find out also what additional information about its pupils the school officers would like to have and what difficulties hinder them in getting it. Try to devise some feasible methods of getting this additional information.

26. It would probably be a very good idea to have youngsters while still in secondary schools give some direct and substantial attention to what happens, as well as what does not happen, to young people very much like themselves upon leaving the secondary school. Assuming that this would be desirable, work out plans whereby a secondary school may include in its educational program effective opportunities for instruction in the problems of youth. Using as a basis dependable research studies of youth's own problems, determine what problems a secondary school ought to bring to the attention of its pupils.
27. Analyze a number of reports which show what problems young people who have left school seem most to want and most to worry about. (There will be many of these reports appearing from time to time.) Then analyze a comparable number of statements of educators who undertake to tell us what the schools can or should do to help young people or to help society solve "the youth problem." On the basis of these analyses work out what you believe to be some important ways of solving the youth problem.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF THE SECONDARY-SCHOOL POPULATION

There are few books about young people of secondary-school age. The reader will do well to consult other general books on the secondary school, most of which devote one or more chapters to facts concerning secondary-school pupils. The chapters by Briggs probably deserve special mention as being more readable than many others. The textbook by Brooks is a highly condensed and systematically organized presentation of objective data and generalizations from the standpoint of the psychologist. Being a book to be studied, it is somewhat difficult for the lay reader, but it is a dependable source of facts. Conklin's book will serve somewhat the same purpose. The study by Woolley is a very comprehensive and carefully organized scientific study which may be difficult reading for the novice. However, even though it is not to be studied carefully, it will illustrate well the work involved in obtaining reliable data concerning young people. Much more readable, in fact highly interesting and easily understood, is the book by Bell. It shows very graphically the ideas and attitudes of young people who are now out of school and faced with problems which are matters of common concern. The problems and prospects of youth are pointedly analyzed by competent authorities in *The Annals*. They deal with youth and the home and the job, youth movements and related matters. The last chapter pre-

sents an excellent bibliography. The National Survey report by Kefauver and others contains a large amount of statistically derived data which will be helpful to the reader who is not bothered by the technicalities of research studies. Both because it represents an original approach in the evaluation of secondary education and because it presents much important information about young people leaving secondary schools, the Regents' Inquiry report by Spaulding merits careful study. Although it is a concise summary of a large amount of research, it is clearly stated. The reports by Eckert and Marshall present in greater detail portions of the research findings summarized by Spaulding. For the person who wishes to do much reading in this field, the annotated bibliography by Menefee and Chambers is excellent. It is very comprehensive and suggestive, and anyone will find in it many publications which he will enjoy reading.

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Eckert, Ruth, and Marshall, Thomas O.: *When Youth Leave School*. Report of the Regents' Inquiry. New York: McGraw-Hill Books Company, 1939. 300 p.

Kefauver, Grayson N., and others: *The Secondary-School Population*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 4.

Menefee, Louise Arnold, and Chambers, M. M.: *American Youth, An Annotated Bibliography*. Washington: American Council on Education, 1938. 492 p.

Spaulding, Francis T.: *High School and Life*. Report of the Regents' Inquiry. New York: McGraw-Hill Books Company, 1938. 377 p.

Woolley, Helen T.: *An Experimental Study of Children at Work and in School Between the Ages of 14 and 18 Years*. New York: The Macmillan Co., 1926. 362 p.

Social Selectivity and Home Backgrounds

The research studies by Counts and by Jordan demonstrate very definitely the ways in which social status influences selective enrollment in the second-

ary school. The White House Conference report is ably and interestingly written. It is a study of the present-day American family as an environment for child development. Numerous case studies make it especially interesting.

Counts, George S. *The Selective Character of American Secondary Education*. Supplementary Educational Monographs, no. 19. Chicago: University of Chicago Press, 1922. 162 p.

Jordan, Floyd. *The Social Composition of the Secondary Schools of the Southern States* (Contributions to Education, no. 108.) Nashville, Tenn.: George Peabody College for Teachers, 1933. 101 p.

White House Conference on Child Health and Protection: *The Adolescent in the Family*. New York: D. Appleton-Century Co., 1934. 473 p.

Intelligence

Boynton and Spearman discuss at considerable length the nature of intelligence and its significance. Boynton's book will be more easily used by the general reader. Spearman should not be attempted by the novice. The research studies by Henmon and by Hopkins indicate the range of intellectual abilities existing among young people attending school. Moore's research describes in some detail the characteristics and attainments of some exceptionally able secondary-school pupils.

Boynton, Paul L.: *Intelligence: Its Manifestations and Measurement*. New York: D. Appleton Co., 1933. 466 p.

Henmon, V. A. C., and Holt, F. O.: "A Report on the Administration of Scholastic Aptitude Tests to 34,000 High School Seniors in Wisconsin in 1929 and 1930," *University of Wisconsin Bulletin*, Serial no. 1786, General Series, no. 1570. Madison, Wisconsin: The University of Wisconsin, 1931. 104 p.

Hopkins, L. T.: *The Intelligence of Continuation School Children in Massachusetts*. Harvard Monographs in Education, vol. 5. Cambridge: Harvard University Press, 1924. 132 p.

Moore, Margaret W.: *A Study of Young High School Graduates*. (Contributions to Education, no. 583.) Teachers College, Columbia University, 1933. 78 p.

Spearman, C.: *The Nature of Intelligence and the Principles of Cognition*. London: Macmillan & Co., Limited, 1923. 358 p.

Attitudes Toward School

Hart's frank report of the judgments of boys and girls concerning the kinds of teachers they have had is easy and stimulating reading. The studies by Coxe and by Coxe and Cowen are more interesting and significant than most research studies of this type.

- Coxe, Warren. *Appraisal of Secondary Education in New York State by Pupils and Former Pupils*. New York State Teachers' Association Monograph, no. 1. (July, 1932), 59 p
- Coxe, Warren W., and Cowen, Philip A. *Educational Needs of Pupils in Small High Schools*. Albany University of the State of New York Press, 1931. 63 p
- Hart, Frank W. *Teachers and Teaching, by Ten Thousand High School Seniors*. New York: The Macmillan Co., 1934. 285 p.

Success and Failure

The analysis by Ide is somewhat extended, but is rather easy reading for those who are particularly interested in its subject. Turney presents a careful analysis which will be helpful for those who prefer systematic research studies

- Ide, Gladys G. *Why Children Fail*. Boston. Chapman and Grimes, 1935. 346 p
- Kluss, Fred J., and Kirby, Thomas J. : *Pupils' Marks in High School Subjects in Thirty-Eight Iowa High Schools*. Extension Bulletin no 278. Iowa City: The University of Iowa, 1931. 60 p.
- Turney, Austin Henry. *Factors Other Than Intelligence That Affect Success in High School*. Minneapolis: The University of Minnesota Press, 1930. 135 p.

Noteworthy Special Studies

Those whose contacts with young people are chiefly at home or in school will find Minehan's description of boys and girls on the open road a stimulating and challenging analysis of young people's problems. The exhaustive studies of Terman and Burks and their collaborators merit the attention of all who have any special interest in young people. They are so full as to demand much time if they are read carefully.

- Burks, Barbara, and others: *The Promise of Youth: Follow-up Studies of a Thousand Gifted Children*. Genetic Studies of Genius, vol III. Stanford University, Calif.: Stanford University Press, 1930. 500 p.
- Minehan, Thomas: *Boy and Girl Tramps of America*. New York Farrar and Rinehart, Inc., 1934. 267 p.
- Terman, Lewis M., and others: *Mental and Physical Traits of a Thousand Gifted Children*. Genetic Studies of Genius, vol I. Stanford University, Calif.: Stanford University Press, 1925. 648 p.

THE IMPLICATIONS OF DEMOCRACY AND THE OBJECTIVES OF THE SECONDARY SCHOOL

APOLOGISTS for the secondary school assert that it deserves support for its service to democracy. But they do not usually define clearly the nature of this service. They assume that widespread provision of some sort of secondary education is evidence either that democracy has been achieved or that it soon will be achieved. The educator's complacency about democracy is ordinarily shared by the layman. As long as the world in general seems to move steadily and inevitably in a democratic direction, attention to democracy tends to be merely an occasion for national self-congratulation. But the suddenness with which many nations have rejected the democratic ideal, and the fact that some of them have had exemplary systems of schools, demonstrate cogently that democracy is no gift from the gods in perpetuity and that the mere provision of education of some sort or another is no surety for it. If the school is to make its best contribution to the perpetuation of the democratic ideal and to the increasing realization of that ideal in the actualities of American life, there must be clear recognition of and devotion to the major implications of democracy.¹

Democracy is not easily pegged down and divided neatly into its component elements. There are various interpretations, and perhaps misinterpretations, of its meaning. It need not be expected, therefore, that we should encompass it or define it in terms which all would accept. But there are certain salient aspects of democracy which sharply impinge upon the secondary school. They are so vital as to produce some of the school's most serious problems and so fundamental as to affect even the minutiae of the school's practice.

Liberty and its educational implications. The terms "liberty,"

¹ Some of the material in this chapter has been published in *The Harvard Educational Review*, 7:1 (January, 1937), pp. 84-92.

"the rights of Englishmen," "popular sovereignty," "consent of the governed," and "representative government" suggest an aspect of democratic culture which is exceedingly important in providing basic justification for the school. Democracy implies that men shall govern themselves. They have the right to set up their own goals, and to change them whenever they desire. They are the final arbiters of the worth of what may be done to them or for them, or of what they themselves do. Their collective judgments and their collective actions are not subject to review or veto by any other authority.

It follows inevitably that the merit, if not indeed the survival, of a democratic culture is peculiarly dependent upon the intelligence and enlightenment of all men. If they are well informed and habitually disposed to use their knowledge in the direction of their affairs, the results will be happy. If they are ignorant, or not inclined to use the knowledge they have in promoting the general welfare, the consequences may be tragic. The "race between education and catastrophe" is an intrinsic characteristic of democratic civilizations. The school must serve as a bulwark against the inevitable consequences of ignorance or stupidity. The stern consequences of popular ignorance need not, however, be emphasized to the point of neglecting the brighter side of the picture. A democratic culture is peculiarly responsive, and susceptible to improvement through education. Any increase in the general enlightenment which the school can produce will soon be reflected in an improved national life. It need not, of course, be inferred that democracy is in this respect entirely different from other types of civilization. The ignorance or the enlightenment of a people is eventually reflected in manifold aspects of their civilization, whether it be a democracy or not. But the sensitivity and flexibility of a democratic culture permit quick and full expression of the insights or lack of insights among its people.

An enlightened citizenship is important as an insurance against catastrophe and as a vantage ground for social advance, but it does not provide fully for some of democracy's necessities. If all men are to be their own courts of last resort, if they are to be free to determine the worth of all that concerns them, it follows that they must not only all be educated. They must all be generously and widely educated. The scope and pattern of the citizen's knowledge and interests must be as broad and varied as his responsibilities and liberties. If he is expected

to exercise judgment and self-direction over such a wide range of matters as is suggested by selecting one's own occupation, or his dentifrice, or his president, or his wife — and presumably his wife will enjoy a similar freedom — he ought to be as well informed as possible about all of these matters. He must be well informed not only for his own personal advantage, but also as a matter of precaution in behalf of his wife and the rest of us. The citizen in a democracy must not merely be given as much education as possible of some sort or other to the end that the collective enlightenment of a people may ultimately advance its culture. He must be fully and broadly informed with respect to all of the matters in which his action will affect his fellows. Any other course is inconsistent. In fact, any other course is wasteful and dangerous.

The best reason for believing that men should be allowed to govern their own actions is the supposition that they can do it better than someone else can do it for them. But unless a man's freedom to govern himself, and inevitably to affect others in so doing, is supported by possession of reliable fact and ability to use it discriminately, the consequences may be very bad for him and for many others. The only way in which we can be sure that every man and his neighbors will profit from a democratic way of life is to supply to him and to them sufficient knowledge of the manifold phases of life to serve as a foundation for intelligent action. The patterns of a man's freedom must be the patterns of his education.

The democratic ideal of liberty does not, however, imply merely that all citizens must be enlightened and that their insights should broadly encompass the full gamut of their responsibilities for action. It strongly demands that every individual shall have the fullest possible opportunity for the discovery and development of his personal talents. A democracy cherishes and fosters these opportunities not merely for the satisfactions which may accrue to the individual as a result of the full development of his potentialities. It esteems them as well for the benefits which they contribute to the general welfare. The life and culture of a democratic social order are supported and enriched through the utilization of the diverse abilities of its individual members. A democratic society strengthens itself when it stimulates the individual to capitalize his aptitudes.

A discerning friend of the democratic ideal of liberty can suggest

many other implications for the school. But these two obligations appear with urgent clarity. The school must see to it that young citizens are equipped with a sufficient breadth of knowledge and insight to serve as a foundation for responsible and intelligent action. It must also provide as fully as possible the means whereby each individual may discover and develop his particular potentialities for effective achievement.

Equality. Educators commonly speak of "equality of opportunity" and "respect for personality." Acceptance of a democratic philosophy implies belief in at least the potential worth of every individual. Social interest must be congruent to individual interest. The ultimate measure of the worth of a civilization is the extent to which it fosters full development and use of the potentialities of every individual.

Both the validity and the feasibility of this ideal may seem to be axiomatic. But it is particularly subject to misapprehensions which produce serious problems, particularly in the secondary school. Many Americans proverbially assert that one man is just as good as another, if not a little bit better. And they like to suppose that the door of opportunity is open to every youth, so that he may become president, millionaire, or air-line pilot if he will. It seems to be expected that the school should accept all young people as equals, accord them equal treatment, and thus somewhat paradoxically make it possible for each of them to get ahead of the others. Not unnaturally, some educators hold similar views. In fact, it is frequently assumed that "democratization" of the secondary school is attained when all young people are enrolled in it. The same assumption is implied when American educators adversely criticize the educational systems of other nominally democratic countries for being highly selective in admitting young people to advanced levels of schooling and for giving preferential advantage to pupils of superior talent.

Such views exhibit serious misapprehension of the democratic principle of equality, or of the characteristic qualities of humanity. The principle of equality implies that every person should be given the fullest possible opportunity for the development and use of his individual potentialities. There is no implication that all should be treated alike. The presumption that identical treatment should be accorded to all is indeed a flagrant denial of the principle of equality. For individuals differ, and appropriate equality of opportunity necessarily

requires differentiated educational treatment. To provide for the pupil of superior talent only the kinds and amounts of education which are appropriate or feasible for the less talented pupil is to deny him the opportunity which democracy seeks to guarantee. To expect the modestly talented pupil to profit from education appropriate for the talented, branding him as a failure if he cannot grapple with it effectively, is also to reject the principle of equality. Hence, the mere extent to which secondary education is made available to young people is a very partial basis for assessing its attainment of democratic ideals. Universal enrollment of young people in secondary schools is at best an initial prerequisite to the discriminate and differentiated treatment demanded by the democratic ideal of equality.

The secondary school is confronted with some challenging issues. For example, it is sometimes criticized for its failure to develop an *élite*. Its critics mention the need for educated leadership and the desirability of using the schools to foster it. Objectors to these criticisms may derogate a tendency to produce a stratified social order or a caste system, but they miss the point. There is a great and important difference between a society permanently stratified in terms of racial, economic, or other characteristics and a society in which there is opportunity and stimulation for ability flexibly to reach its appropriate level. The school may properly foster the development of talent in the expectation that persons who have superior ability and the disposition to use it wisely will normally advance to positions of social leadership. Those who so narrowly conceive the principle of equality as to resent the elevation of persons of superior competence and identify it as evidence of a caste system may well ponder the comparative advantages of universal mediocrity. Obviously, democracy at its best demands that the secondary school shall offer to young people of differing kinds and degrees of talent the opportunities and challenges which will result not in uniformity but in differentiation.

Fundamentally a part of this general issue is a problem which repeatedly confronts the American secondary school. The numbers and the heterogeneity of secondary-school pupils sometimes increase so rapidly as to tax both the resourcefulness of educators and the facilities which are supplied for their use. Some authorities believe that the burden of attempting to provide education for all the pupils who choose to be in secondary schools, or who find themselves there for lack of

opportunity to be where they might otherwise choose to be, is so great as to jeopardize the entire educational enterprise. It is sometimes suggested that it might be profitable for all concerned if pupils whose meager talents or unfortunate attitudes make it practically impossible to educate them were excluded from school.² If many pupils now in school are not being satisfactorily educated, and if educators are unable to find ways in which this difficult task may be accomplished, we must frankly consider the possible advantages, both for those who remain in school and for those who leave, to be derived from excluding some young people from secondary schools. This is admittedly no ideal solution of the problem. It reflects a definite failure to give practical effect to the democratic ideal of equality. It may, however, be more in harmony with this ideal than the vain pretense that equality of opportunity is being realized by retaining in school pupils whose presence results in no profit to themselves or to society and interferes with the effective education of their fellows. It is sometimes pointed out in this connection that, although considerable numbers of pupils may actually be wasting their own time and that of their fellow pupils and teachers, their presence in school is excused by the fact that it is not so bad here as it would be in such other places as are accessible to them. In many instances this excuse is valid, but it is nevertheless a poor excuse.

It is undoubtedly wholesome for educators to ponder the extent to which their program is so unsuitable or ineffective that some of the intended beneficiaries would actually be better off without it. But the exclusion of pupils from school is unpromising as a permanent method of solving educational problems. The school should sometimes frankly admit defeat, but it should not adopt a permanent policy of defeatism. Not until the school has done its utmost to provide the best possible educational program should it decline to serve those for whom the democratic ideal demands consideration and respect.

Fraternity. A third major principle in the democratic conception of life and education is concerned with brotherhood, group solidarity, common consideration for the general welfare, and the identification of personal advantage with the prosperity of all men. Educational authorities sometimes refer to these matters as the justification of the "integrating function" of the secondary school. Some degree of

² F. T. Spaulding: "A Brief for the Selection of Secondary-School Pupils," *The Harvard Teachers Record*, vol 1, no 3 (November, 1931), pp 99-109.

solidarity is an elemental necessity in any type of society. For example, the beneficiaries of dictatorship must have it, if the dictatorship is to be permanent and effective. But in non-democratic societies it is necessary for the sovereign authority directly to foster social cohesion. In a self-governing or democratic society the development of group consciousness is a peculiarly appropriate task of the school. In the nature of things consideration for the general welfare of others is not an inherited or intrinsic possession of men. It must be learned. It is natural that individuals should consider their own interests primarily. The democratic view of life recognizes this fact and makes full allowance for it. However, individual advantage is in the long run best insured by a prevailing sense of consideration for the welfare of the great society. And men are so adaptable that personal satisfactions are richly available to those who have learned to identify their personal ambitions with the welfare of their fellows. The stimulation and development of this attitude of benevolence and good will is unquestionably one of the most significant contributions which the school can make in supporting a democratic society. For it is highly important that this mutual consideration and regard shall be not merely a matter of sentiment. Much social wreckage has accumulated through the efforts of persons who are filled to overflowing with benevolent sentiments, and poorly supplied with the insights which are needed to direct them. Hence the school should develop in young people understanding and generous interest in matters beyond the limits of their immediate concerns. They must be made to appreciate also, as broadly as their individual talents permit, the full gamut of matters which concern the great society. This essential task is necessarily difficult. We grow accustomed to the statement that we live in an increasingly complex world. A democratic civilization tends inherently to be complex. Increasing social complexity inevitably increases both the necessity and the difficulty of developing adequate understanding of it.

A further necessity lends weight to the importance of making broad social insight a common possession of all individuals. Whether the secondary school intentionally discovers and develops leadership or not, the social order will have leadership. And particularly in a democratic society, intelligent followers are no less important than intelligent leaders. Unless people generally appreciate the value of the

enterprises of the wise leader, his purposes may fail of fruition. Unless the citizen has the insight which permits him to evaluate judiciously the ambitions of the demagogue, the general welfare is imperiled. Furthermore, neither leadership nor followership are distinctive characteristics of certain individuals or groups. Even those whom we recognize as outstanding leaders actually exercise leadership only in limited aspects of life. They themselves are dependent upon the wisdom and initiative of others for the direction of many of life's affairs. Likewise, many persons who are commonly looked upon as followers act as leaders in many enterprises. Complex personal relationships and the wide distribution of common responsibilities demand that social understanding and good will be made a common possession of all citizens of a democracy.

We shall do well to recognize also that the realization of the democratic ideal of fraternity demands that we shall live it. The citizen may in a sense understand it, and he may develop certain favorable attitudes to it. But unless he has to some extent experienced it in the tangible realities of everyday living, his insights are necessarily partial and his sentiments are somewhat superficial. It is for this reason that the friend of the democratic ideal insists that it must be not merely an ideal, it must be a way of life. So much of life is habit, so much of the conduct of men as individuals and in social groups is not consciously or rationally directed that social insights and concern for the democratic ideal must be supported by well-established habituation in democratic modes of living.

It is somewhat paradoxical to believe that in order to arrive at a democratic way of life we must already have lived in democratic modes and patterns, but there is nevertheless much reason for the belief. So powerfully do our established modes of conduct operate to maintain themselves that they frequently persist in spite of their being out of harmony with what we know and sincerely believe. This is one of the most important obstacles to our realization of the democratic ideal, and in the very nature of our ordinary social living such obstacles cannot be avoided. However, it is relatively feasible to reduce these obstacles in a school. A school is necessarily a somewhat artificial thing, and its patterns for individual and group conduct are easily shaped to some design. If the school's life as a social unit is wisely patterned to conform to our ideals of democratic living, the habits of

life there established in pupils will inevitably tend to persist in the lives of young people as they leave school. Even though the school seeks to remain entirely neutral and tries to avoid having any direct influence on the patterns of social living outside the school, it cannot possibly do so. Although its members are for a time withdrawn from some of the experiences in living which they would otherwise have outside the school, their living is not thus suspended. Life does go on, even in a school. If the school merely permits its patterns of group living to persist or develop quite indiscriminately, or if these patterns are planned without much concern for their relation to the democratic ideal, they may actually serve as deterrents or obstacles to a realization of the ideal. If, however, they are made to exemplify in terms of the day-to-day relationships of young people working together in school the implications of the democratic ideal, we can assume that the school has at least not hindered our progress toward it.

It is not to be expected that the school should be set up as a little democratic utopia cut off from a world which does not so easily rearrange itself according to some new social pattern; it would in a sense defeat the school's own purposes if it were to attempt to provide for its pupils a ready-made democratic pattern for group living in school. There is probably both better idealism and better strategy in attempting to provide for young people in school opportunities wherein they will themselves share responsibility in the attempt to develop a more democratic mode of life. This means a good deal of compromise between what ought to be and what can be, but such compromise seems to be essential to democracy.

Out of their experiences in the relatively incidental, unspecified, and unregulated personal and group relationships and responsibilities in school young people will naturally develop attitudes favorable to the continuance of similar experiences in out-of-school living. It is therefore highly desirable that the school as an institution should at least make it possible for young people to experience in their ordinary relationships the actualities of democratic ways of living.

The need for balance in emphasis. Democracy is not wholly different from other types of social life and idealism. To some extent at least, its component elements are to be found in every form of social organization. Even in despotism there is some need for the development of individual initiative and individual expression, and anarchy

does not become a reality without some degree of group solidarity and likemindedness. Democracy gets its distinctive character chiefly from the balance with which its major emphases are organically combined. If in our zeal for democracy we stress some elements of the democratic ideal much more than others our effort may actually be destructive of the goals to which we aspire. For example, a school which provides wide opportunity for pupils to follow their personal preferences in electing subjects of study may be in harmony with the democratic ideal of self-direction and liberty. But in so far as the pupil is thus permitted to avoid subjects which represent important fields of general social concern, the result may be a selfish personalism and the absence or distortion of the broad insights which are essential to proper concern for the general welfare. On the other hand, a school which prescribes a common program of subjects for all pupils may perhaps be serving democracy's need for the common background of knowledge and interests which contribute to social solidarity. But in so doing it may be rejecting the principle of equality of opportunity for the development and exercise of individual differences in talent and achievement. Anyone who is well acquainted with the practices of secondary schools will doubtless be able to discern many apt instances of the fact that strong emphasis on partial elements of the democratic ideal may actually result in disservice to democracy. If it is to serve democracy well, the secondary school must not merely provide to a greater or less degree for the development of those types of personal competence which democracy requires of the individual. It must maintain a nicely balanced emphasis, so that no major essential of the democratic ideal is either exaggerated or neglected.

It is well to assert devotion to democracy. It is perhaps better to identify liberty, equality, and fraternity, and their diverse social connotations. But unless these desirable social goals are translated faithfully into their requisite educational corollaries, the educational outcomes sought by the school may not be in harmony with the democratic ideal. In very brief summary, certain major implications of democracy suggest definite goals to be achieved by the secondary school in the education of all young people. Appropriately adjusting its objectives to different levels of individual capacity, the secondary school is obligated to provide for the development of these educational outcomes:

1. Sufficient breadth of insight or understanding to serve as a basis for intelligent personal action in the manifold phases of life
2. Awareness of the quality and degree of the individual's personal aptitudes for effective achievement and suitable realization of his potential abilities.
3. Appreciative and enlightened concern for the general welfare of the great society.

The stated objectives of the secondary school. In contrast with these broad principles, which cannot easily be briefly stated without losing much of their meaning, the explicitly stated objectives of the secondary school are often very brief — so brief in fact as to seem like popular catchwords. These stated objectives differ also from the educational implications of democracy which are here presented in that the objectives frequently fail to indicate the kinds of outcomes which the school should seek to produce. They often point a direction, but they do not define the educational goal. And, moreover, they do not clearly take into account the school's mandate from a democratic society. These limitations, however, are so important that they should rest on something more than this brief statement. Thoughtful consideration of some of the commonly accepted statements of objectives will serve to show them more clearly.

Individual development as an objective. As we have seen, it has long been customary to suppose that the purpose of the secondary school is to develop the individual. This objective, thus briefly stated, is sufficiently indefinite to make it acceptable to educators whose real purposes are markedly at variance. It has served as a rallying cry both for the disciplinarians in general, including the faculty psychologists, and for the individualistic sponsors of the child-centered school. The disciplinarians and the individualists find it possible to subscribe to this stated objective, despite their sharp differences in purpose, because it does not even suggest either the nature of the final goal or the immediate outcomes which are essential to the attainment of the goal. It is perhaps helpful to say that education should develop the powers of the individual, that it should promote the growth of the individual, that it should be suited to the needs of adolescents, that it should grow out of the felt needs and interests of pupils, and so on. But beyond this we need to know what powers are to be developed, toward what ends growth should be promoted, and what needs are to be met.

It is perhaps not entirely appropriate to designate individual development as an objective of education or to criticize it for its shortcomings as an objective. For in a sense the educator who subscribes to individual development as the keynote of his work is disclaiming any special responsibility for the selection of appropriate outcomes of education. This is particularly true in the case of the individualist, who is apparently willing to accept human beings as they are and to devote his efforts to making them more so. He assumes that either or both of two propositions are true. The inherent tendencies of human beings are assumed to be so desirable that they need only to be fostered or stimulated, or the direction and motives which individuals receive from sources other than the school are assumed to be worthy of encouragement. These assumptions imply that a boy who comes to school is somewhat like a chrysanthemum. There is no danger of his becoming a goldenrod to give hay fever to anyone, or a poisonous mushroom to bring death to the unwary. On the contrary he will become a thing of beauty if someone who understands his needs will provide for them. This vegetative theory of education seems to overlook the fact that the human plant is exceedingly versatile and adaptable. He may become a night-blooming cereus, a puff-ball, or a good potato. His gardener may study his early sproutings until the cows come home. But unless the gardener knows what sort of plant he wishes finally to have and what kinds of treatment will produce it, the gardening is a gamble. If the assertions of the individualists are to be taken literally, only a complete optimist is fitted to serve as a high-school principal.

As a matter of actual school practice, the developmentalist does not unequivocally conform to his asserted purpose. He finds that his pupils not infrequently exhibit tendencies which must be redirected or eradicated. He qualifies his statement of purpose by saying that he seeks, of course, only to foster those individual tendencies or inclinations which are worthy or wholesome. But to admit the need for redirection is to suggest the need for definite goals, and to limit the educational process to the achievement of what is wholesome is to indicate the need for qualitative standards in terms of which we may determine what is wholesome. Apparently, then, acceptance of individual development as the chief purpose of the secondary school is not a sufficient declaration of the goals to be achieved.

Even if individual development were serviceable as a definitive objective for secondary education, its utility in the furtherance of the democratic ideal ought to be considered. It is obvious that emphasis on individual development is in harmony with certain aspects of the democratic ideal. Concern for the full development of the individual directly suggests respect for personality, liberty, and the full utilization of the individual's talents. But even if these purposes are broadly interpreted they do not fully meet the requirements of the democratic ideal. The need for social solidarity and enlightened concern for the general welfare are not very directly implied when the purpose of the school is stated in terms of individual development as such. Unless this further need is specifically taken into account, emphasis on individual development runs the risk of producing eccentric or selfish individualism rather than competent and socially responsible individuality. It must be remembered that democracy is not without its disciplines. It imposes characteristic demands on the individual. These disciplines or demands are not necessarily a hindrance or barrier to the development of the individual. On the contrary, if the intrinsic demands of the democratic ideal are directly met and mastered by the individual, his freedom and his ability to secure what he seeks will be increased rather than diminished. An educational objective which takes its cues from the tendencies of the individual without strict regard to the demands or necessities of the social environment may actually serve as a hindrance both to the individual and to the society of which he is a member.

If, however, it is definitely recognized that any educational purpose stated solely in terms of individual development or growth is necessarily limited and partial, there is some merit in considering it and using it. Its rational use requires that it be supplemented by such valid conceptions of outcomes or goals as will help to answer the question, Growth toward what?

Preparation for living as an objective. Even though the need for intelligent conceptions of ultimate outcomes may not have been sufficiently apparent to the exponents of individual development, there is in education a long tradition which emphasizes the importance of definitely conceived objectives. From Quintilian to Bobbitt there has been a continual effort to state the purposes of the school in terms of the activities of life or of the abilities which a person must have in

order to pursue these activities effectively or wisely. In this long span of almost two thousand years the critics of the schools have consistently objected to the failure of the schools to prepare their pupils for "the real business of living." And the schools have apparently been just as persistent in their failure to do it, although they have supposedly tried to do it. The Commission on the Reorganization of Secondary Education were closely in accord with the tradition of Franklin, Priestley, and Spencer when they recommended that the secondary school should be primarily concerned with the production of fitness in "health, command of fundamental processes, worthy home-membership, vocation, citizenship, worthy use of leisure, and ethical character."³ Although this list is a somewhat disorderly miscellany, its logical inconsistencies are less important than its reassertion of the principle that secondary education should prepare young people for "complete living." Were it not for the fact that the statement of these objectives was supplemented by several publications in which their supposed implications for secondary-school instruction were specified, the presentation of these objectives would probably have had very little effect. In fact, these aims have been widely criticized for their vagueness. No teacher could be expected to find in them clear goals for the orientation of his work.

These shortcomings have led some to assume that the problem might be solved if approved activities of adults were examined, analyzed and classified. A most substantial attempt to produce such a classification is represented in the work of Bobbitt, who produced a list of essential activities or abilities much more specific and definite than the seven cardinal objectives.⁴ Although more than a decade has passed since Bobbitt's work was published, secondary schools seem to have been unable to make practical application of it. Nevertheless, critics and reformers of the secondary school persist in asserting that the problem must be solved thus. In 1935, for example, Snedden repeated the claim that "such focusing of objectives as will point clearly to the best teaching methods" will appear "if the widely approved activities of adults are realistically examined and classified."⁵

³ Commission on the Reorganization of Secondary Education. *Cardinal Principles of Secondary Education*. U S Bureau of Education Bulletin, 1918, no 35 32 p

⁴ Franklin Bobbitt. *How to Make a Curriculum*. Boston. Houghton Mifflin Co., 1924, pp 8-9.

⁵ David Snedden. "The Effect Upon Methods of a Changing Curriculum: With Special Reference to the Social Studies" Part I of the *Fifth Yearbook of the National Council for the Social Studies*. Philadelphia McKimley Publishing Co, 1935, pp 9-19

The persistence of these efforts to have the school prepare young people for acceptable performance of the activities of life and the continual failure of the school to measure up to the expectations of its critics suggest that, although the school may be partly at fault, there may be something wrong with the objective. The difficulty may arise from the fact that the life-preparation objective is not stated in terms of normal educational outcomes. For example, it is plausible to say that the school should make a contribution which will eventually be productive of worthy home-membership on the part of its pupils, but this assertion by no means even suggests the specific character of the school's contribution. There are a thousand things any one of which a school might seek to do in the very reasonable expectation that they would somehow, sometime, directly or indirectly make a young person a better member of his home. It is indeed hard to imagine any sort of decently acceptable outcome of schooling which might not make such a contribution. As a matter of fact worthy home-membership is not an educational objective in the sense that it is an outcome which may be intentionally and directly produced by the school. The outcomes of schooling may be significantly related to worthy home-membership, but the relationship is so indirect and diffuse that mention of home-membership scarcely suggests even vague clues to the educational outcomes which would serve as objectives for the secondary school. And, unfortunately, much the same weakness is characteristic of most of the other "cardinal objectives." It is well to remember that schools have for a long time been in the business of producing certain changes in individuals. The general character of these changes is suggested by such terms as understanding, interest, attitude, skill, ability, habit, and the like. These things are the products of schooling, the outcomes of education or training. They are capable of being utilized in the maintenance of health, or in vocation, or in citizenship, but they are far from being identical with health or vocation or citizenship.

Considerations of this sort have led many authorities to emphasize the necessity of bridging the gap between remote and intangible objectives and the immediate educational products of the school. Monroe, for example, points to the difference between "paper objectives" and the "real objectives" which are inherent in the teacher's

instructional procedures.⁶ He recommends a practical distinction between "conduct objectives" (those having reference to the life situations which education influences ultimately) and "control objectives" (which are the immediate products of secondary-school instruction — knowledge, ideals, and habits).⁷ The terms "ultimate objectives" and "immediate objectives" are commonly used to emphasize a similar distinction. Monroe's terminology has the merit of indicating that these two classes of objectives differ not only with reference to time but also in quality. Recognition of this distinction has led many persons plausibly to infer that the school's task will be clarified if ultimate objectives stated in terms of life activities can be translated into immediate objectives stated in terms of educational products — knowledge, skill, and attitude.

Even on the assumption that we have or can soon prepare satisfactory analyses and classifications of the approved activities of adults, it seems likely that we shall not get very far in the attempt to translate such lists of activities into their prerequisite educational outcomes. Suppose, for example, that realistic examination of the approved activities of adults demonstrates that pupils in the secondary school should be given education which will cause them to cleanse their teeth four times daily. In order to simplify the problem as much as possible, suppose also that the determination of needed skills and ideals has already been made and that we have only to decide what knowledge pupils must have if they are to cleanse their teeth acceptably and persistently. Should pupils be made to understand that most good people cleanse their teeth four times daily? Should they understand the possible social, physiological, and aesthetic effects of failure to keep the teeth clean? Should they know anything about the individual and social characteristics of bacteria? Do they need to know anything about acids, bases, and salts in general, or about certain acids, bases, and salts in particular? Should they have knowledge of certain diseases of the teeth and gums, and if so, which diseases? Is there any necessity for their knowing also about various pathologic conditions which have their origin in dental defects? Need they know anything about the physical and chemical composition of a tooth? Will it be

⁶ Walter S. Monroe "Teachers' Objectives," chap. III of *Directing Learning in the High School*. Garden City, N. Y.: Doubleday, Page & Co., 1927, pp. 51-84.

⁷ Walter S. Monroe and Oscar F. Weber "The Aims of the High School," chaps. V and VI of *The High School*. Garden City, N. Y.: Doubleday, Doran & Co., 1929, pp. 122-87.

useful for them to understand the function of a dentifrice and the physical and chemical characteristics of an adequate dentifrice? Should they be informed about the services and qualifications of dentists? Have they any need for knowledge of the practices and profits of the advertiser of dental nostrums, or of the function of the teeth in relation to the effective digestion of food, or of the influence of diet upon the integrity of a tooth? Even if it were decided that a pupil should know about all of the matters suggested in this very brief and sketchy list of questions, how are we to determine how much he should know about each of them? The business of cleansing the teeth is a relatively simple thing which ordinarily involves little reflection or judgment, but merely to determine that it is an approved activity of adults does not indicate very clearly the nature of the school's responsibilities with respect to it.

The same thing is true wherein most of the important activities of life are concerned. Any activity for which it is possible to catalog definitely the essential background of knowledge is likely to be so trivial that it may safely be ignored by the secondary school. Those activities which are highly important are properly occasions for the reflective integration of vast ranges of knowledge. For example, the citizen who, in order to vote intelligently in a municipal election, must decide which of several sources of municipal water supply is preferable must draw widely and fully from many fields of knowledge. He must take into account the several qualities of the water in each of these sources. He must consider their relationship to the industrial requirements of the community and to the hygienic needs and aesthetic satisfactions of its inhabitants. He must weigh both the immediate and remote financial costs against the financial resources of the community. He must be aware of the possibility that partisan interests may be in conflict with the interests of the community generally. There is scarcely any conventional field of knowledge which he may properly fail to use in arriving at this single decision. In fact, he needs a liberal education in order to meet this particular situation competently.

Obviously, the attempt to state the objectives of the secondary school in terms of the life activities to which the school is expected to make some unspecified contribution does not solve the problem. Even if we believe that the final justification of the school depends upon its

utility in preparing young people more competently to carry on the activities in which they will inevitably be engaged, the school's contribution to this end must be specified in terms of educational outcomes.

The implications of democracy and the life-preparatory aim. The life-preparatory aim should be considered also in the light of its relation to the democratic ideal, although the vagueness and indirection with which the aim is stated is a handicap. In one sense at least the life-preparatory aim is more or less in harmony with certain implications of democracy. It emphasizes the importance of the everyday concerns of the individual. It implies respect for the normal enterprises and responsibilities of men and women here and now. It tacitly opposes the asceticism, the otherworldliness, and the smug cultural irrelevance which have often beset the secondary school. Beyond these vague general leanings, however, the life-preparatory aim does not either suggest any general commitment to the democratic ideal or specify any particular contribution to its realization. The statement that the purpose of the secondary school should be to prepare young people for their activities in life would be directly applicable either to a school entirely attuned to the needs of a democratic culture or to a school ungrudgingly devoted to training young people for life in a despotic caste system. No such ambiguous or equivocal aim can be expected to direct or clarify the school's service to democracy.

In contrast with the implications of the democratic ideal the statement of the life-preparatory aim in terms of the so-called seven cardinal objectives is both vague and narrow. It is vague in the sense that it does not indicate whether the individual is to be prepared for life's activities by training and habituating him in efficient practical performance of these activities, or by developing such insights and interests in these activities as will make him competent for self-direction in them, or by some other means which may catch the fancy of an educator. It is narrow in the sense that it suggests an unwarranted personalism. Although it is true that even the school's remote social influences must result from its effects upon the individual, the individual's education should not be focused too narrowly upon his own activities and within the limited sphere in which he himself will be directly active. As we have seen, democracy implies that the individual must have sufficient understanding and sufficiently developed talent to serve as a basis for effective personal action. But it demands

that individual action should be not merely effective. Action must also be governed and directed with appropriate concern for its social effects. Furthermore, the aim of preparation for the activities of life, with its emphasis upon the individual's performance of these activities, can hardly be said even to suggest democracy's need for enlightened fraternal sympathy and mutual understanding. The individual must not merely be prepared in some way or other to carry on his own activities in life, and he must not merely be aware of the effects of his activities upon others. It is equally important that he be educated with reference to the activities of other individuals. Unless one has substantial knowledge of the activities and circumstances of his fellows, unless he can share vicariously their experiences, his concern for their prosperity may be little more than shallow and futile sentiment.

If it be interpreted very broadly, the statement of the secondary school's objective in terms of preparation for the activities of life may perhaps be supposed to refer not merely to the sphere of positive personal action in a limited personal environment, but also to the realm of insight and intelligent interest extending beyond the areas of personal circumstance. But such an interpretation requires that the stated objective must be supplemented with meanings which it does not of itself suggest. The objective of the secondary school ought not to be either so vague or so narrow as to demand that it be bolstered with essential meanings which it lacks. On the contrary, the objective should be so definite and clear as to give sure direction to the school's work. It should be so important as to challenge the educator's best effort. It should be so comprehensive as to include at least every major essential.

Developing understanding and appreciation. The objectives stated by the 1927-28 Commission on the Curriculum are in contrast but not in conflict with the life-preparatory purpose implied in the seven cardinal objectives.⁸ The newer statement of objectives is made in such terms as these: Understanding and appreciation of the self; understanding and appreciation of the world of nature; understanding and appreciation of organized society. The development of these insights and interests is unquestionably an appropriate means of

⁸ The 1927-28 Commission on the Curriculum: "The Objectives of Secondary Education," chap. II of "The Development of the High-School Curriculum," *Sixth Yearbook* of the Department of Superintendence, National Education Association. Washington: 1928, pp. 38-58.

preparation for the activities of life, and they have the practical advantage of being stated in terms of direct outcomes of school work. They do not require the school to try to do its work in terms of adult activities so remote from school undertakings as to be confusing and unmanageable. Understanding and appreciation are the kinds of things which a school may directly undertake to produce. Not only are these objectives stated in terms of genuinely educational products. They also specify forthrightly the areas in which understanding and appreciation are to be developed.

These objectives have obvious merits. Their clarity and definiteness alone should appeal to the educator, who has reason to be weary of aims which are epitomes of vagueness and indirection. When the school's task is said to develop in its pupils understanding and appreciation of individual human beings, of the natural environment and of the social order, no person who is willing to accept this mandate need long be puzzled concerning its implications for the school. It is obvious, furthermore, that this statement of purpose is clearly in harmony with major elements in the educational implications of the democratic ideal. The understandings and appreciations which it suggests are of the sort which are necessary for intelligent action on the part of the free citizen, for awareness of the quality and significance of human talents and potentialities, and for appreciative and enlightened concern for the general welfare of society. Indeed, the only important element in the democratic ideal for education which is not directly suggested in these objectives is the provision of opportunity for the realization of the individual's potentialities, and, as will be pointed out, it is doubtful whether a school can be expected to take full responsibility for this provision in any case.

Thoughtful educators will observe certain other important omissions in the objectives stated by the Commission. They do not explicitly specify the need for developing in boys and girls abilities and habits which are essential to individual and social well-being and which are recognized as suitable objectives of training in school. Some of these abilities are almost indispensable in the business of acquiring the insights and appreciations which are so highly commended. The ability to read and the habit of reading are undoubtedly necessary and suitable outcomes of secondary education. No less appropriate objectives are dictated by individual and social need for personal competence in

other aspects of the use of language and in other media for cultural intercourse. Moreover, these objectives do not directly suggest the desirability of seeking to develop in young people effective skill or productive competence of any sort. Boys and girls who are well educated in terms of these objectives might be entirely praiseworthy for their insights and interests, but unhappily deficient in their technical skill and productive competence.

Parenthetically, certain practical handicaps should be noted which, although they are not intrinsic weaknesses, may serve to prevent the willing acceptance of these objectives on the part of the schools. So definitely and unequivocally do these statements of purpose point to the matters concerning which the secondary school is to develop understanding and appreciation that a school which neglects them and consumes the time and energies of its pupils in other business can hardly subscribe to this aim without calling direct attention to its own shortcomings. It is, therefore, to be expected that a secondary school which prefers comfortably to persist in offering the sort of program which it happens to have been offering may also prefer to subscribe to statements of ultimate goals which are so indefinite and so remotely related to its immediate activities as to prevent anybody from being able to see whether its alleged purposes are being achieved or not.

Secondary-school aims and the need for discrimination. The secondary school must exercise discrimination in setting up its goals. Almost anything which secondary schools generally do in behalf of their pupils is likely sometime, somehow, or somewhere to benefit some of the pupils somewhat. There are indeed teachers who find satisfaction in the assertion that their work has not been in vain if it has helped a pupil to become a better boy or girl. But both the secondary-school pupil and the society which supports the school may rightfully demand from it a much higher standard of achievement and a much more careful selection of services than is here implied. It is not enough merely to assert that the school will develop the pupil, or give him preparation for life, or minister to his needs, or perform a helpful service to society. The school must know and must make known what particular types of development, or preparation, or need, or services are to be its major responsibilities.

A school which accepts responsibility for the development of the

child is not obligated to provide for his whole development, and a school which undertakes to prepare youth for living is not thus bound to supply complete preparation for living. In its anxiety to serve young people well or to merit generous support from a public which is not always enthusiastic about education a school may be tempted to provide a great variety of services. Although all of these services may be worthy, some of them may not be suitable undertakings for a school, and even though a school manages to provide a given service effectively, the fact remains that some other agency might very well provide the same service more easily and economically. The school is, of course, not alone in its tendency to scatter its resources among a variety of enterprises some of which may have little relation to its major or distinctive purposes. The church, for example, sometimes undertakes either to supplant or to supplement its major functions with efforts to supply theatrical entertainment, vocational counseling, athletic programs, social recreation, or education. However, granting the desirability of many of the services which schools may undertake to provide, such undertakings should not be assumed indiscriminately and without proper consideration of their relative value and their appropriateness as parts of a school program. In any case the school may well hesitate to adopt many additional functions unless there is assurance that its major responsibilities are being successfully met.

Its historic traditions, the continually reasserted positions of its critics, and its strategic situation in contemporary life suggest that the secondary school makes its best contribution to young people individually and to the great society which supports it by producing in young people understanding and appreciation of the world in which they live. It has long been the business of the secondary school to develop the minds of young people and to put them in the possession of knowledge. Very frequently, to be sure, the nature of this development has been narrowly or unwisely conceived, and the knowledge which was presented to the pupil has had little reference to the vital concerns of contemporary life. These defects the critics of the schools have repeatedly laid bare. But it is worth remembering that even the critics beholding the weaknesses of the school in these matters have not commonly sought to have it discard these purposes and to supplant them with alien objectives. The school's position as an institu-

tion favors such purposes. The school is sufficiently removed from the practical enterprises of men and their social institutions to view the world with perspective and without undue bias. Indeed, the school's institutional aloofness, which is sometimes exaggerated so much as to be a serious weakness, is a distinctive and essential advantage. Other agencies, whether public or private, are so committed to certain specialized or perhaps even selfish interests as to disqualify them for the task of disinterested but devoted service jointly to individual young people and to the great society. Other tasks the school may sometimes safely leave to be undertaken by other agencies, but it cannot justly claim to serve young people well or to discharge its obligations to society unless it seeks first and foremost to develop in every pupil the insights and appreciations which contribute to effective and intelligent personal action and to enlightened concern for the general welfare.

The primary importance of developing these insights and appreciations need not prevent the school from serving additional purposes. A major purpose need not be an exclusive function. As far as possible it seems desirable that the school should undertake to provide opportunities whereby young people may discover and develop their aptitudes and potentialities for various types of activity. As we have seen, such opportunities are an essential element in a democratic society. It is doubtful, however, whether the school can assume any very complete responsibility for providing them. To provide opportunities for the discovery and development of various types of ability is to provide with reasonable fidelity the kinds of situations in which these abilities are effectively and suitably employed. Although an aptitude may in a sense exist as a latent element in the individual's personal equipment, regardless of his environment, an effective ability actually comes into existence through the relation of the individual and his environment. A pupil seated in the classroom may have aptitude for swimming, or for public speaking, or for skilled craftsmanship in cabinet work, or for persuasive leadership of common folk. But unless he can be brought into contact with the materials and the situations which are essential elements in their effective employment, the pupil's abilities cannot easily be discovered or developed. Although a secondary school can provide in some measure various types of situations in which pupils may suitably discover and develop their special abilities,

such provisions are necessarily limited in number and scope. A large school with unusually generous resources can offer many more opportunities than are feasible in a school of the ordinary sort. But even under the most favorable circumstances it is clearly impossible for a school to provide bona fide opportunities for the development of the vast number of abilities which are needed by the different individual members of a complex society. The secondary school which seeks to contribute fully to the attainment of the democratic ideal will normally attempt to stimulate the development of manifold kinds of abilities among its individual pupils. But severe practical handicaps prevent a school from providing the genuine character of the multiform environments in which the abilities of men are developed and tested. A school cannot fairly be given full responsibility for providing this highly important service to the individual and to society.

In this connection it should perhaps be noted also that the limitations of the school do not apply solely to its provision of opportunities for the discovery and development of the individual's personal aptitudes and abilities. The development of the insights which are basic to intelligent personal action and of appreciative and enlightened concern for the general welfare are also educational responsibilities which the school can hardly fulfill. Certainly much of the understanding which people get comes from sources outside the school. Indeed the school could not feasibly undertake exclusive responsibility for the development of adequate insight, even if this were necessary. In all of its obligations in a democratic society the school can claim no separate or exclusive mandate.

Particularly in the task of providing for young people opportunities for the discovery and development of their special aptitudes and abilities, the school can probably do little more than share a function which is too broad and varied to be encompassed by any one social agency. In some measure also the secondary school should not and need not be expected fully to provide for the development of the insights and appreciations which are essential. So great is the necessity and value of these insights and appreciations, however, both to the individual and to society at large, that the school cannot safely neglect to develop them as fully as possible. Other responsibilities the secondary school may have, either in consequence of its own initiative or because it finds them forced upon it. The importance or urgency of these sub-

sidary tasks will often be determined by changing times and circumstances. But the persisting necessities of a democratic society, the individual's correlative need for insights basic to effective and responsible action, and the secondary school's traditions and its strategic situation as a social agency point clearly and urgently to one major objective. The full connotations of this objective are concisely suggested in the objectives stated by the Commission on the Curriculum: understanding and appreciation of the self; understanding and appreciation of the world of nature; understanding and appreciation of organized society. Although there is presumably nothing binding as to the acceptance of these specific terms, the goals which they clearly indicate are unquestionably in harmony with the secondary school's obligations and its characteristics as an institution.

Summary. So fundamental and diffuse are the connotations of the democratic ideal and its general implications for the secondary school that it is impossible to identify fully the particulars in which they are or are not wisely and effectively applied in secondary-school practice. Any attempt to summarize them in the form of concise and specific criteria for the evaluation of school practice is, therefore, somewhat inappropriate if it excludes the broader connotations which it briefly represents. However, for purposes of emphasis it may be well, before going on to consider in turn the various aspects of the school's conventional practice, to call attention particularly to some of the broader implications of the nature of the population served directly by the school and of the necessities of the society whose common life they are to share.

1. The secondary school has continued to be a selective institution making its benefits available particularly to those who are otherwise privileged and withholding them from those whose opportunities are comparatively meager. In a democratic society which seeks to provide equal opportunities to all persons and which for its own general welfare requires that they shall all be generously educated, the secondary school must find ways to remove these disparities.
2. It is obvious that the young people who attend the secondary school differ markedly in their aptitude for learning, their interests, and their ability to cope with the conventional program. Even if the school were under no obligation to serve social needs, it could not justify its acceptance of pupils for whom its program results frequently in failure. Because it recognizes an obligation to prepare young people for intelligent

and effective citizenship, its educational program must provide equality of educational opportunity for young people who are not equal.

- 3 Not merely in spite of their inequalities, but with positive acceptance of the inequalities of individuals, the school must provide for all young people experiences in which they shall develop broadly and generously the insights and appreciations which support intelligent action in the many avenues of personal life and which are the basis of wise and responsible concern for the general welfare of the great society.
4. Cherishing the values and the varieties of human talent for their worth both to the individuals who have them and to the society which gets strength from them, the secondary school must provide the widest possible range of opportunities for its individual pupils to discover and develop their potential abilities.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Collect and classify a large number of contemporary statements of the purposes of secondary education; or trace historically the stated purposes of secondary education.
2. Interview several teachers (or pupils, or parents, or disinterested laymen) in order to discover what they believe the major and dominant purpose of the secondary school to be
3. It is commonly asserted by its critics that lack of purpose is a major cause of the secondary school's difficulties. Show specifically how this is, or is not, true.
4. Is it true that the difficulty of recognizing the purpose of the secondary school is a reflection of the instability and confusion of American culture? Substantiate your opinion on the matter.
5. Acceptance of a major purpose does not preclude advocacy of additional minor or subsidiary purposes. List in the order of their importance additional purposes appropriate to the secondary school
6. The major purpose advocated in this chapter is assumed to be in harmony with the furtherance of democratic social ideals. Evaluate or criticize this assumption in considerable detail.
7. If the purpose here advocated were evaluated from an individual rather than a social viewpoint, would its validity be diminished?
8. Examine the stated objectives of particular subjects of instruction as expounded by their sponsors. Are they in harmony with the general purpose commended in this chapter?
9. The secondary school is by no means the only agency which seeks for one reason or another to help the individual to acquire insights concerning the world he lives in. Is it possible or probable that other agencies will or should supplant the school?

10. It is desirable that educators and laymen should be able to evaluate the secondary school's work by observing definite evidence of its success or failure. In what ways may we best determine whether or not the school is producing the insights which young people should have?
11. There is some reason to believe that, although almost everybody has at least some vague notion of what democracy is, there are not many of us whose conceptions of it are so clear as to help us wisely to foster its attainment. Teachers are under strong obligation not merely to favor democratic ideals, but to understand what they are. Make a careful selection and study of books which are useful in clarifying our conceptions of the democratic ideal or in analyzing our present circumstances in relation to our democratic ideals. If you are in a position to do it effectively, develop plans for helping the teaching staff of a secondary school to increase their appreciation of what democracy means and to seek to improve their contributions to it through the work of the school.
12. Because of the fact that educators commonly subscribe to aims which are remote, nebulous and inadequately stated, they find in them no clear directions for their own efforts. Teachers frequently express their desire for some objectives which are challenging and which get down to "brass tacks." Undoubtedly one cause of this dissatisfaction is the fact that a school seldom attempts to develop and formulate its own definite purposes as an institution. It obtains its statement of aims ready-made from other sources, and is unhappy to find that they don't seem to fit. Try to work out an appealing and effective method by means of which the staff of a secondary school may profitably develop a clear and definite formulation of the educational outcomes which it will undertake to produce.

SOME MATERIALS USEFUL FOR FURTHER STUDY OF THE AIMS OF SECONDARY EDUCATION IN A DEMOCRACY

Bode's *Democracy as a Way of Life*, a crisply stated and lucid analysis of the nature of education in the service of the democratic ideal, can be recommended to any reader who is even mildly interested in its subject. The points of view which it presents are in harmony with those of Dewey, whose *Democracy and Education* is widely known and read, but not so easily understood. The brief monograph sponsored by the Educational Policies Commission, and drafted by Charles Beard, is written with the incisive clarity and simplicity which are characteristic of its author. It could be read by a schoolboy, and will be read with profit by thousands of educators. Being primarily concerned with the relation between the school and society, and having a viewpoint fundamentally different from that of most educators, Counts traces historically the social background of American education.

The books by Sisson and Kilpatrick are also easily readable, and, although their views are somewhat less clearly developed, they will be useful to persons who wish to read something in addition to the books already mentioned.

The Great Investment by Briggs and *Education and Social Dividends* by French do not so directly and clearly emphasize the nature of the school's mandate and obligation, but they give weight to the school's duty and possibility of contributing definitely to the welfare of the great society. The brief article by Clarke is distinguished for its breadth of philosophic perspective and its discerning recognition of current problems.

Bode, Boyd H.. *Democracy as a Way of Life*. New York: The Macmillan Co., 1937. 144 p.

—: *Modern Educational Theories*. New York: The Macmillan Co., 1927. 351 p.

Clarke, F.: "Some Reflections on Secondary Education," *University of Toronto Quarterly*, 3: 67-86 (October, 1933).

Counts, George S., and others: *The Social Foundations of Education*, Part IX: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 227 p.

Dewey, John. *Democracy and Education*. New York: The Macmillan Co., 1916. 434 p. Especially chapters VIII and IX.

Educational Policies Commission: *The Unique Function of Education in American Democracy*. Washington, D.C.: National Education Association, 1937. 129 p.

French, Will: *Education and Social Dividends*. New York: The Macmillan Co., 1935. 119 p.

Kilpatrick, William Heard: *Education for a Changing Civilization*. New York: The Macmillan Co., 1926. 143 p.

Ordinarily, as the preceding chapter has suggested, those who attempt to state specifically the aims of the school do so without much explicit recognition of the broader concerns of a democratic society. It will be desirable, therefore, for the reader to consider both the materials mentioned above and some of the more specific statements of aims and objectives. The chapters by Gosling, Inglis, Koos, Monroe and Weber, and Uhl are all, with the possible exception of the first, more or less alike in presenting statements of aims which are formulated parochially and without much supporting analysis of the broader service which a school must give. They are all easily readable, and perhaps compelled by considerations of brevity to be more narrowly logical than broadly thoughtful. The reports of the Committee on the Orientation of the Secondary School are somewhat fuller in treatment but not markedly different in point of view. They merit reading both for their somewhat fuller development of ideas and for the fact that their comparative recency has made

it possible to take into account some of the growing necessities and urgencies of a school which is accepting all sorts of young people into membership. Although their composite authorship makes them very uneven in quality, they contain some very significant material. Probably because of the fact that Briggs served as chairman of this committee, the materials which it has presented correspond noticeably with the materials which he has himself presented.

Briggs, Thomas H.: "The Special Functions of Secondary Education," chaps. XIII and XIV of *Secondary Education*. New York: The Macmillan Co., 1933, pp. 252-88 (Substantially similar material is contained in chap. XI of "The Articulation of the Units of American Education," *Seventh Yearbook* of the Department of Superintendence of the National Education Association, 1929, pp. 196-207.)

Committee on the Orientation of Secondary Education: *Functions of Secondary Education*. Bulletin of the Department of Secondary-School Principals, no. 64 (January, 1937), 266 p.

—: *Issues of Secondary Education*. Bulletin of the Department of Secondary-School Principals, no. 59 (January, 1936), 372 p

Inglis, Alexander: "The Aims and Functions of Secondary Education," chap. X of *Principles of Secondary Education*. Boston Houghton Mifflin Co., 1918, pp. 367-86.

Koos, Leonard V.: "The Aims and Functions of Secondary Education," chap. IV of *The American Secondary School*. Boston: Ginn & Co., 1927, pp. 150-74.

Monroe, Walter S., and Weber, Oscar: "The Aims of the High School," chaps. V and VI of *The High School*. Garden City, New York. Doubleday, Doran & Co., 1929, pp. 122-87.

Uhl, Willis L.: "Educational Objectives and Curriculum Values," part III of *Secondary School Curricula*. New York: The Macmillan Co., 1927, pp. 287-353.

—: *Principles of Secondary Education*. New York: Silver, Burdett & Co., 1925. 692 p. Especially chapters XIV and XV.

Peters and Snedden both illustrate rather concretely the attempt to discover the aims of the school by a process of intensive analysis. The first book by Snedden is somewhat more readable than the others, although some persons will not be made comfortable by his general thesis. Henderson's textbook should be read by persons who wish to know how our thinking about the purposes of education has or has not changed during the last few decades. Spencer's analysis is, of course, a widely known educational classic, and should be read by those who covet a full grasp of this general field. The book by Tugwell and Keyserling is penetrating, and difficult. It will be stimulating for those who are specially interested.

- Henderson, Ernest Norton: *A Text-Book in the Principles of Education*. New York: The Macmillan Co., 1916. 593 p. Particularly chapter I, "Various Conceptions of the Aim of Education."
- Peters, Charles C.: *Foundations of Educational Sociology*. New York: The Macmillan Co., 1927. 447 p. Especially part II.
- Snedden, David: *Cultural Educations and Common Sense*. New York: The Macmillan Co., 1931. 324 p.
- : *Sociological Determination of Objectives in Education*. Philadelphia: J. B. Lippincott Co., 1921. 322 p.
- Tugwell, Rexford G., and Keyserling, Leon H.: "Social Objectives in Education," Part I of *Redirecting Education*. New York: Columbia University Press, 1934, vol. I, pp. 1-114.

PART III

THE CONVENTIONAL SECONDARY
SCHOOL: ITS PRACTICE AND
RATIONALE

ORGANIZATION, ARTICULATION, AND STANDARDIZATION

THE three schools which now comprise the American school system are not closely integrated and well knit. The elementary school, the secondary school, and the college originated somewhat independently, and they have continued to develop separately. Between the elementary school and the secondary school particularly there has been very little evidence of mutual recognition. Each school has carried on its own undertakings in its own way, setting up its own program and attempting to solve its own problems, as if they were in no way related to the program or the problems of the other school. It has been customary for the high school to admit any child who has completed the program specified by the elementary school. Recently, in fact, there has been an increasing tendency for the secondary school to accept even those children who have been unsuccessful in completing the elementary-school program. Thus the assumption has been that membership in the elementary school implies preparation for membership in the secondary school. But there has been no common attempt to plan the instruction of the elementary school in terms of such preparation. And, on the other hand, the secondary school has traditionally made little effort to build its educational program upon the foundations already laid by the elementary school, except as it has been compelled to modify its own instruction somewhat in relation to the abilities or lacks in ability in the pupils it has received from the elementary school.

Attempts to justify inco-ordination. This general condition has become so common, so much taken for granted, that some persons have attempted to justify or at least to rationalize the situation by postulating distinctive objectives for the elementary school and the secondary school. These theories have included a variety of approaches. Some have assumed that the elementary school and the secondary school might be differentiated in terms of the stages of physiological or

psychological development which were assumed to be peculiar to their pupils. For example, the elementary school has been thought of as an institution for physiologically immature persons, while the secondary school has often been designated as concerned with adolescents. The fact is that the pupils do not sort themselves to suit the theory, and it is hard to see what particular difference it would make in an educational institution if they did.

There have been some attempts to establish a difference between the two schools on the basis of distinctive types of educational products or objectives. The elementary school has been assumed to produce competence in the use of certain "fundamental tools," the techniques of reading, writing, and arithmetic computation. The secondary school, from this standpoint, is the place where pupils acquire facts which are useful in life (whatever that may mean). Now it is perfectly obvious that, although the elementary school may do much to advance the pupil in his proficiency in reading, writing, and arithmetic, and although the secondary school may instruct the pupil in useful facts, neither of these objectives is the sole or exclusive concern of either school. We know that there are many college students who are rightly increasing their skill in the use of these fundamental tools and we know very well that the pupil in the elementary school is getting useful possession of many facts.

Others have emphasized distinctions in terms of the pupils' presumed needs for varying amounts of guidance and close supervision. Thus the elementary school is designated as the school in which the pupil receives very immediate personal guidance. The secondary school is characterized by a higher level of capacity for individual responsibility and self-direction. And, to complete the picture, the college is euphemistically described as providing opportunity for the exercise of personal freedom and initiative. There is obviously some measure of truth in these attempted distinctions, but it seems equally apparent that progress from the childish need for guidance to the independence of maturity is not and should not be achieved in three sharply sudden leaps. It is and presumably should be developed through gradual and continuous processes analogous to growth.

Very little reflection concerning the characteristics of the pupil populations of these schools is needed to make clear the impossibility of differentiating the functions of the elementary and secondary

schools in terms of these pupil characteristics. Some differences are discernible, but they are chiefly differences in degree and the degrees themselves vary from individual to individual.

There is, however, one reasonably valid exception, although its validity is rapidly diminishing of late. Formerly, at least, the elementary school was the common school. All children were expected to attend it. The secondary school, on the other hand, was a selective institution. Its pupils were the favored few. They were likely to be exceptionally bright or exceptionally prosperous, or both. We have seen that this distinction still exists, although it is fast waning. The secondary school is also coming to be a common school, and the tendency seems likely to persist. This fact has tremendous significance, particularly when it is true that this is taking place through the sheer force of increased enrollments and not by virtue of adequate changes in the purposes and educational program of the secondary school.¹

Early claims for the junior high school. The rapid influx of youth into the secondary schools has perhaps served to stimulate and accelerate efforts to effect better articulation between the elementary school and the secondary school, but the demand for better articulation preceded the rapid growth of secondary-school populations. Charles Eliot, the far-sighted president of Harvard University, was interested in the possibility of reducing the amount of time devoted to elementary and secondary schooling.² Although he was not entirely in sympathy with educators of his own day with reference to the desirable functions of the secondary school, Eliot's influence was an important stimulus toward a gradually developing movement to modify the relationship of elementary school and high school. This movement was concerned with the administrative reorganization of the school system. It gradually became centered in zealous advocacy of what we now know as the junior high school, a distinct unit between the elementary school and the senior high school, and ordinarily comprising grades seven, eight and nine.

Early believers in the desirability of the junior high school saw in it the attainment of many advantages. Those who were disturbed by

¹ The significance of this statement concerning the inadequacy of the changes in the educational program of the school should become more apparent when the educational program of the secondary school is examined in detail.

² See the chapter, "Can School Programmes Be Shortened and Enriched?" pp. 151-76, Charles Eliot: *Educational Reform*. The Century Co., 1898. 418 p.

the large numbers of children leaving school upon completion of the elementary-school program advocated the junior high school as a means of "bridging the gap" between the elementary school and the high school. Others promoted the junior high school as a promising means of facilitating the pupil's adjustment to the unfamiliar circumstances of the high school — circumstances involving new social groups, curricula, methods of instruction, and methods of school management. Additional support for the junior high school came from those who desired the introduction of improvements in the educational program of the school and in the services which it might provide for young people. The commonly recognized functions which the junior high school should serve to promote are very well summarized by Spaulding, whose statement of them is as follows:³

- I. An organization of subject matter which shall
 - A. Continue the training begun in the elementary school in those elements of habit, knowledge, and skill which should be a part of everyone's equipment
 - B. Offer to all boys and girls an insight into the most important fields of human interest and endeavor, as a basis for
 1. Clearer understanding of their duties and privileges both as individuals and as members of society, and
 2. Intelligent choice of their future activities — vocational, avocational, social, recreational, religious.
 - C. Offer to all boys and girls an opportunity to begin training directed toward the activities tentatively chosen
 - D. Provide for those pupils who must leave school at or before the completion of the junior high-school period training which shall fit them so far as possible for immediate entrance into a suitable vocation.
 - E. Make possible the progress of each individual at the rate best suited to his needs and capacities
 - F. Emphasize in all subjects of study those elements most directly associated with pupils' present and future activities and interests.
 - G. Preserve at each stage a proper balance between the various elements in the pupil's general training and his specialization.
- II. The employment of teaching methods to accord with present knowledge of adolescent psychology, individual differences, and effective teaching technique.

³ Francis T. Spaulding *The Small Junior High School*. Harvard Studies in Education, vol 9 Cambridge Harvard University Press, 1932, pp 16-17.

- III. The provision of social experience, both within and without the recognized curriculum, which shall fit the individual to become a generously co-operative member of society.
- IV. The establishment of a system of guidance which shall aid the pupil to determine intelligently
 - A. His future lines of activity, of whatever sort
 - B. The course of training necessary to fit him for such activity
 - C. His relations with others with whom he comes, or may come, in contact.

The movement for the junior high school was probably motivated to some extent also by the ambition or at least the modest willingness of secondary-school officials to extend their professional domains and increase their prestige and influence.

Anyone who examines the printed records of the movement for the junior high school will find little evidence of objection to it. Educators, particularly those interested in secondary education, seemed generally to favor it. It was expected to insure progress; in fact, at least in the minds of its advocates, it was essential if progress was to be made. Were it not for the traditional inertia of the schools themselves and the taxpayers who control them, the movement for the administrative reorganization of the schools would undoubtedly have gone much further than it has.

But the movement has actually made remarkable progress. If the six-year unit of secondary education has not yet become universally established in practice, it has become a commonly recognized actuality. Fortunately, also, it has gone far enough to justify and to make feasible some evaluations of the results which it has produced.

Early expectations not fulfilled. One of the most thorough and significant parts of the recent National Survey of Secondary Education is concerned with the actual status and some of the outcomes of the movement for reorganization of the secondary school.⁴ This investigation presents rather conclusive evidence to indicate that the typical reorganized school is superior to the conventional school. It shows that there are some conventional schools which are superior to some reorganized schools, which suggests that administrative reorganization is not absolutely prerequisite to excellence; but it also reveals the fact that even the best of the conventionally organized

⁴ See Francis T. Spaulding, O. I. Frederick, and Leonard V. Koos: *The Reorganization of Secondary Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 5. 423 p.

schools are somewhat inferior to the best reorganized schools. For example, it was found that the conventional school can achieve any one of the excellent features of the reorganized school, but that the reorganized school is in a more favorable situation to provide a comprehensive and well-balanced variety of advantages.

However, the authors of this report are careful to point out the fact that administrative reorganization, as such, is probably not the sole cause of the superiorities which are found in reorganized schools. For example, they cite the importance of mere numerical size, showing that relatively large average grade enrollment is commonly a factor in the superiority of reorganized schools. Also reorganization itself, like the superiorities which frequently accompany it, may be a result of other favorable factors, such as strong community interest in educational progress, unusually competent educational leadership, or extraordinary financial support. Reorganization, rather than being the cause of certain excellent features in a secondary school, may frequently be the result of other conditions which have actually caused various educational changes, of which reorganization is only one element.

Furthermore, this investigation of the status and results of reorganization amply demonstrates that formal reorganization does not insure improvement in the secondary school. It does perhaps afford conditions which can be capitalized by wise and competent leaders who will actually plan and execute improved educational programs, but it certainly is no substitute for this planning.

. . . the explanation of such differences (between conventional and reorganized schools) is probably to be found, as a matter of fact, not so much in what the different types of organization *cause* as in what they *make possible*. At best, the form of a school's organization probably does little more than provide a relatively convenient or inconvenient setting for desirable practices. Superior forms of organization prove to be superior simply because they make desirable practices easier to adopt than is the case under other forms of organization.⁵

To those who have hoped that the formal reorganization of the secondary school would produce various improvements in educational practice the findings of this investigation must be somewhat disappointing. The results of reorganization in the typical secondary school seem too meager. Although the schools investigated were

⁵ *Op cit*, p. 244

probably somewhat better than average, actual practices in representative junior high schools seem to fall far short of the claims and expectations of its advocates. There are major weaknesses in the physical equipment, the organization of instruction, the need for better articulation with the elementary school, the guidance of pupils, the teaching staff, and the supervision of the typical junior high school.⁶ Only in providing an extensive program of extra-curriculum activities does the typical junior high school seem to have distinguished itself. When it is recognized that extra-curriculum activities, because of their more remote and flexible relationship to the rest of the school's undertakings, are inherently feasible in any type of school organization, there appears to be neither rhyme nor reason in the business.

Careful examination of the details of the reported practices of reorganized secondary schools shows that the authors of the report have not been unduly pessimistic in summarizing their findings. They briefly characterize the practices of typical junior high schools as follows:

It is apparent that the arrangements that are commonly provided are not all that might be desired. The typical junior high school affords opportunity for a surprising variety of extra-curriculum activities, it is true; classroom groups are, on the whole, not unduly large; slow pupils and overage pupils are provided for in a measure through certain schemes for the adjustment of teaching to their individual needs; the teaching staff has for the most part been professionally trained. But the curriculum as a whole still retains a predominantly academic cast; the extra-curriculum seems to be maintained quite as much by administrative mandate as by its own inherent appeal to pupils' interests; provisions for individual differences largely neglect the brighter pupils, the school makes small use of potentially valuable instruments of measurement and diagnosis; arrangements for articulation with the elementary school below and the senior high school above are in almost no particulars highly developed, and in important phases of the school's work are entirely lacking; and provision for the guidance of pupils — a major function of the junior high school — has gone little beyond a rudimentary stage. All this is true, it must be remembered, of the organization typical of a group of junior high schools which are presumably somewhat better organized than the average. In the light of that fact, more impressive evidence than this could hardly be found in support of the thesis that no mere formal adoption of a junior high school pattern will produce reorganization worthy of the name.⁷

⁶ *Op. cit.*, pp. 59-68.

⁷ *Op. cit.*, p. 68.

It must be remembered that the survey upon which these generalizations are based was concerned primarily with various features of the structure or administrative arrangement of secondary schools. While these matters are indicative of the general merits of different types of school organization, they are naturally not adequate bases for complete evaluation of the effects of reorganization.

A different method of approach is represented in Beatley's study of the academic achievement of pupils in conventionally organized schools and in reorganized schools.⁸ This investigation shows that, although there are substantial differences in certain detailed elements of scholastic achievement, neither type of school has shown clear superiority in producing academic competence.

Obviously more evidence is needed before a complete evaluation can be made of the results of the administrative reorganization of secondary schools, but the facts which are available at present suggest that formal reorganization, as such, should not be depended upon to produce noteworthy improvements in secondary education.

It need not be assumed, however, that the reorganization movement has been fruitless or that it merits derogation. Even though it may not have achieved what was expected from it, it may make possible many profitable educational advances, especially if the enthusiasm and zeal heretofore devoted to reorganization are wisely applied to the improvement of the educational program of the school.

One of the fundamental problems with reference to the relation of the secondary school to the elementary school has not yet received adequate attention. This is the sequence of subjects in the curricula of the two schools. Each school unit plans and administers its own program of studies with conspicuous independence and neglect of what the other school may do or propose to do. Now that the secondary-school population tends to become increasingly all-embracing, this lack of articulation gains in importance. Whether or not the matter should be dealt with immediately is perhaps a debatable question. It is possible that the secondary school has enough internal difficulties of its own to make it unwise to attempt articulation of curricula before setting its own house in order. Very likely, however, this is a matter which ought at least to be considered. Before the program of the

⁸ Bancroft Beatley: *Achievement in the Junior High School* Harvard Studies in Education, vol. 18. Cambridge. Harvard University Press, 1932 92 p

secondary school can be accepted as fully satisfactory, there should be closer articulation with the elementary school.⁹

The junior college. During recent years much popular attention has been attracted by the junior college, ordinarily a two-year unit extending beyond the twelfth grade of the high school, or corresponding to the first two years in the conventional college or university. The junior college was strongly advocated by President William Rainey Harper of the University of Chicago at the turn of the century. Thus far it has developed most rapidly in those sections of the country where relatively few four-year colleges were already in the field. If it be considered an extension of secondary education, the junior college is somewhat analogous to the junior high school. Educators who are concerned directly with secondary education often look upon the junior college as an upward extension of secondary education. There are, however, relatively few instances in which junior colleges have been organized as closely articulated extensions of secondary schools, and it remains to be seen whether the junior college will eventually be recognized commonly as a part of secondary education. The fact that the junior college is very often local in its service and control will undoubtedly lead to closer articulation with secondary schools, but its tendency to be influenced by certain needs and problems in the larger universities may cause it eventually to align itself among the colleges and universities.

The junior college has tended to develop as a local institution for many different reasons. Financial economy, the prolongation of individual immaturity, ready accessibility, and the cultural and civic advantages accruing to the local community have caused many communities in some sections of the country to favor the junior college. On the other hand, the large state universities, finding their facilities seriously over-taxed by large numbers of lower-division students, and recognizing the difficulties and shortcomings of large numbers of students during their early years of attendance at the universities, have encouraged the development of junior colleges in the hope that their own problems might thus be diminished. It has also been increasingly

⁹ An interesting instance of the possibility of developing a well-articulated curricular program for elementary and secondary schools is the attempt of authorities in the teaching of science to recommend a twelve-year sequence of courses in science. See "A Program for Teaching Science," *Thirty-First Yearbook* of the National Society for the Study of Education, Part I. Bloomington. Public School Publishing Co., 1932, 370 p

recognized that there are many young people whose abilities, probable civic and vocational responsibilities, and personal ambitions make it highly desirable to provide for them more education than they can get in the high school and somewhat less than is represented in the program of the four-year college or the university. Furthermore they may need and be able to use certain types of education which are at least different from what is now available either in secondary schools or higher institutions.²⁰ Particularly in California, where it has developed very substantially, the junior college has served to ameliorate some of the former difficulties produced through the concentration of large numbers of attendants at the large universities and has won the approval of its local beneficiaries and supporters. The junior college has also made some progress in developing "terminal courses" for young people whose needs are not elsewhere provided for. Although its future development as a common element in the educational systems of states throughout the nation will be determined very largely by social conditions which are somewhat unpredictable, it seems likely that its further growth will depend considerably on the extent to which it serves distinctive needs which neither the high school nor the usual type of college can well supply and which are popularly recognized as essential.

THE RELATION OF THE SECONDARY SCHOOL TO THE COLLEGE

The nonchalance with which the secondary school accepts pupils who come to it from the elementary school is in no way emulated by the college. In fact it may fairly be said that in their imposition of entrance requirements in terms of performance in the secondary school the colleges present a unique and supreme example of the extent to which an educational institution can go in the direction of being zealous, arbitrary, and inconsistent. It is ironical that the high school which accepts all comers in the most generous and friendly fashion should have to suffer so many suspicious indignities at the hands of the colleges.

A fact to be recognized at the outset is that there is much conflict of opinion concerning the true function of the college. Some authorities

²⁰ Walter Crosby Eells: *The Junior College* (Boston: Houghton Mifflin Co., 1931. 833 p) is an indispensable source of information not merely concerning the causes of the junior college movement, but also the various aspects of its development

look upon it as an institution for the education of a few highly competent leaders. In this case obviously the college can increase its chances of graduating people who will be superior if, by careful selection in advance, it admits only those who have already demonstrated their superiority. Other authorities believe that the college should be generously democratic in providing further opportunities for education to large numbers of young men and women. In general the older and wealthier of the privately endowed colleges tend to follow a rigorously selective admission policy, while the state colleges and universities have been less exclusive. If public and private institutions were both well distributed geographically there might be better justification for this difference in admission policy. There are some sections of the country in which privately endowed colleges are the predominant type while in other sections public institutions serve the vast majority of college students. The practical effect of this is to make the necessities of college entrance requirements more closely related to geography than to the character of secondary-school populations.

It is difficult to describe the actual admission requirements of colleges, because of their great variety. Not only do the requirements of various colleges differ in kind and in amount, but the requirements of particular colleges change from year to year. Furthermore, these changes in particular colleges are not always in the same direction. They frequently represent reversions to practices only recently discarded.

Subjects prescribed for admission to college. However, there are certain generalizations which are significant, even though they have many exceptions. Since the turn of the century changes in the prescriptions of high-school subjects for college admission have more frequently taken the form of decreases in requirements than of increases. At present, colleges prescribe on the average approximately two-thirds of the college-preparatory pupil's high-school program of subjects. Brammell shows that this average prescription is divided among five subject fields as follows:²²

English	3.0 units
Mathematics	2 1 units
Social studies	1 2 units
Natural science	1.0 units
Foreign language	2 4 units

²² P. Roy Brammell: *Articulation of High School and College*. U. S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 10. p. 45.

In addition to prescription of subjects which the pupil must have for admission to college there is further restriction of the program through refusal on the part of many colleges to accept certain subjects commonly included in high-school programs of study and definitely recognized by high schools as legitimate avenues toward graduation from high school.

Both kinds of restriction are admittedly supported by tradition. That they by no means guarantee or predict successful achievement in college is amply demonstrated by the large numbers of students who have met the entrance requirements and are soon eliminated from college through failure in courses. Several recent investigations show that the relationship between the subjects taken in high school and success in college is too small to justify the practice of prescribing high-school subjects for college entrance.¹²

However, there are reasons for expecting that this unfortunate condition will slowly be improved. Many colleges are steadily decreasing their requirements of high-school subjects, particularly in mathematics and foreign languages. Some have even gone so far as to eliminate all subject prescriptions, and others require only English. Another promising tendency appears in the attempts of many to experiment with other criteria for the selection of college entrants. Some of the more commonly used criteria, as reported in the National Survey of Secondary Education, are indicated in the table on page 157. It is to be expected that some of these new types of criteria will be sufficiently serviceable to justify considerable relaxation of the curriculum prescriptions which, although they have actually been decreased somewhat, handicap the secondary school in its efforts to improve its educational program.

A further reason for assuming that the difficulties incident to college preparation will be remedied is the increasing tendency of college and secondary-school authorities to co-operate. Joint effort increases mutual understanding. Co-operation between the high school and the college is significant in producing immediate modifications in practice

¹² Paris Roy Brammell: *A Scientific Study of Entrance Requirements in the University of Washington*. Doctor's thesis. University of Washington, 1930.

W. M. Proctor and Lawrence Bolenbaugh: "Relation of Subjects Taken in High School to Success in College," *Journal of Educational Research*, 15: 87-92 (February, 1927).

F. W. Reeves and J. D. Russell: "The Type of High-School Curriculum Which Gives the Best Preparation for College," *Bulletin of the Bureau of School Service*, vol. 2, no. 1. Lexington: University of Kentucky, September, 1929. 106 p.

TABLE 7. NUMBER OF INSTITUTIONS INCLUDING CERTAIN ITEMS IN THEIR MOST COMMON COMBINATIONS OF ENTRANCE CRITERIA FOR REGULAR STUDENTS ⁴³

Criterion	Frequency	Rank	Per Cent Adopting since 1924
Transcript of high-school credits	318	1	28
Recommendation of principal	262	2	33
Personal interviews with applicants	138	3	38
Rank in high-school graduating class	135	4	55
Recommendations of persons other than the principal	133	5	50
High-school diploma	131	6	36
Character rating	126	7	74
Presentation of high-school subject certificates	118	8	72
Examination devised and administered by institution	101	9	90
College entrance board examinations	93	10	60
Intelligence test	93	11	56
College aptitude test	53	12	72
Other examinations (Regents, State Board, etc.)	44	13	75

and for the greater insight which should be productive of important advances in the future.

The College Entrance Examination Board. The prescription of high-school subjects for admission to college is by no means the only way in which the program of the high school is influenced by external authority. Closely related to these prescriptions is the effect of the examinations set by the College Entrance Examination Board. Since its establishment in 1900 the services of this board have been increasingly utilized. At present practically all colleges receive some students who submit the results of their examinations as entrance credentials, and in certain sections of the country, particularly in New England, the examinations of this board are so commonly used as to become a major concern of teachers and pupils in the high school. Naturally these examinations do not exert much influence upon the selection of high-school courses; that influence is strongly exerted by the subject prescriptions of the colleges themselves. But they have acted as a standardizing and stabilizing check upon modification of the internal content of certain academic courses in the high school. Regardless of the merits of standardization in general, it must be admitted that the increasing influence of these examinations has hindered

⁴³ Adapted from P. Roy Brammell: *Articulation of High School and College*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 10, pp. 21-22.

and discouraged those who have sought to modify the content of high-school courses.

In addition to this disadvantage, the examinations have been strongly criticized for their unreliability. Numerous investigations have indicated that the marks assigned to examination papers are questionable and that performance on the examinations is not an accurate and just basis for the selection of candidates for admission to college.

Recently, however, the College Entrance Examination Board has begun to develop examinations which have less hampering effects upon the high schools. In addition to offering more options in the subjects selected for examination, the Board attempts to measure the candidate's general scholastic aptitude. In its special examinations for persons seeking college scholarships, it has experimented with measures calling for no specific preparation, and assessing the student's scholastic aptitude and general achievement, including his "outside reading." As these promising tendencies continue they will doubtless encourage the secondary schools to improve their practices.

Standardizing and accrediting agencies The educational program of the secondary school is also partially determined by the influence of permanent standardizing and accrediting organizations. In most cases these organizations, which are ordinarily regional, serve a variety of functions in addition to matters of standardization and accrediting of secondary schools, but the standardizing and accrediting functions are those which most directly affect all secondary schools within their spheres of influence. There is obviously an important advantage in having an accrediting agency which sets up standards sufficiently objective to stimulate laggard schools to meet reasonable minimum programs of attainment. There can be little question concerning the general profit which has come from the work of such organizations as the North Central Association of Colleges and Secondary Schools of the Middle States and Maryland, and the New England Association of Colleges and Secondary Schools. In their earlier years, to be sure, these regional associations tended frequently to emphasize the physical and administrative aspects of the schools and to neglect the quality and the results of the educational process. Particularly in the schools of the North Central Association there was emphasis upon such matters as the existence of ample buildings, laboratory equipment, library

books, or numerical ratios of teachers and pupils, without adequate regard for effective and appropriate use of these facilities, and without much concern for the local circumstances of individual schools. More recently, however, these emphases have changed markedly for the better and with much more concern for the improvement of educational opportunities and results. In this connection, the work of the Co-operative Study of Secondary School Standards merits favorable mention. It has made a noteworthy attempt to arrive at standards of evaluation which will emphasize the essential quality and results of the actual educational experiences of boys and girls in school, permit individual schools to judge themselves and be judged in terms of their own purposes or goals, and stimulate them to continue to improve.

Palliatives less needed than remedies. Efforts to improve the schools through administrative reorganization and standardization obviously have been needed. It is unfortunate that some of their effects have been bad in that they have failed to get at the root of the difficulties which they were intended to remove. Specifically, the organization of junior high schools, although it may facilitate genuine educational improvements, has all too frequently not actually produced them. The admission requirements imposed by the colleges have supposedly eased and simplified the problems of the colleges, but they have generally hampered the high schools. The consequent revolt of the high schools against college domination has in turn made the high schools themselves more comfortable, but it has not stimulated them to attempt seriously to provide better preparation for students going on to college. The past efforts of regional standardizing agencies to impose uniform patterns on all schools, incidentally goading the handicapped and ascribing merit to the favored, have encouraged the acquisition of scholastic facilities rather than responsible attention to educational processes and results.

These inadequacies do not necessarily reflect discredibly upon the movements for reorganization and standardization. Judged in the light of their times and circumstances, it may very well be that they have been incomplete but necessary steps toward further improvement. Even if many of the efforts to improve administrative organization, articulation, and standards have been palliatives rather than remedies, they may aid in the development of fundamental remedies in the educational programs of the schools.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. If secondary schools accept as pupils many boys and girls who have not satisfactorily completed the work of the elementary school, what specific problems and difficulties are thus imposed upon the secondary school?
2. Make a survey of recent changes in requirements for admission to colleges
3. If colleges were to adopt the policies employed by secondary schools in admitting entering pupils, what would their entrance requirements be?
4. It is sometimes asserted that secondary schools unnecessarily persist in offering certain courses which are required for admission to very few colleges, even though their graduates do not ordinarily attend these colleges. Find out what percentages of pupils who have taken certain so-called college-preparatory courses have actually found it necessary to use them for admission to college.
5. Present evidence to indicate whether the adoption of the junior high school has been instrumental in reducing elimination of pupils from school.
6. Which of the specific advantages claimed for the junior high school by its special advocates have actually been realized in practice?
7. Considering the advantage of both the secondary school and the college, what should be the character of requirements for recommendation and admission of young people to college?
8. Examine in some detail the administrative relationships involved in the management of typical secondary schools. In what ways is the administrative organization democratic or undemocratic? What are the educational implications of these facts?
9. In what ways is the administrative organization of the secondary school definitely appropriate or inappropriate to the character of its educational program?
10. Show specifically ways in which the quality of its leadership may be more important than the form of its organization in improving the educational program of a secondary school.

SOME MATERIALS USEFUL FOR SUPPLEMENTARY STUDY

Unfortunately for the general student of secondary education there is a dearth of materials which deal with school organization and administration from the standpoint of persons not specially interested in the work of the school administrator. This condition reflects the fact that it has become

more or less traditional for school administration to grow into something of an end in itself, and books on school organization and administration characteristically have little resemblance and not much more relationship to those which deal with the program of the secondary school as a whole or with the educational aspects of its practice. Although they were written for the specialist in school administration, the following textbooks will give the general student of secondary education some notion of the kinds of things with which school administrators are made chiefly to concern themselves.

- Almack, John (Editor): *Modern School Administration; Its Problems and Progress*. Boston: Houghton Mifflin Co., 1933. 382 p.
- Cox, Philip W. L., and Langfitt, R. Emerson: *High School Administration and Supervision*. New York: American Book Co., 1934. 689 p.
- Douglass, Harl R.: *Organization and Administration of Secondary Schools*. Boston: Ginn & Co., 1932. 579 p.
- Edmonson, J. B., and others: *Secondary School Administration*. New York: The Macmillan Co., 1932. 274 p.
- Proctor, W. M., and Ricciardi, N. (Editors): *The Junior High School: Its Organization and Administration*. Stanford University, Calif.: Stanford University Press, 1930. 334 p.

For those who are interested in consulting somewhat more specialized studies of school organization, the following studies may be helpful. The ordinary student is likely to find them difficult, and somewhat uninteresting, but there are significant facts contained in some of them. The National Survey report by Kefauver and others has a title which is somewhat misleading, since it deals not merely with organization but with many miscellaneous aspects of secondary education. It is, furthermore, very loosely knit, so that the reader has to be something of a detective and organizer to assemble the information which he needs. It does contain much valuable information to reward the diligent and competent student. The National Survey report by Spaulding and others is rigorously organized, and presents highly significant conclusions, some of which have been briefly indicated in the preceding chapter. The report is well worth the attention of the reader who is interested in a thoroughgoing analysis of objective data. The other special studies mentioned here are rather technical in treatment and sectional in application. Though the facts which they present will not in themselves be of interest to the majority of readers, perusal of them will suggest the character of the special studies in this field.

- Hamrin, Shirley Austin: *Organization and Administrative Control in High Schools*. (Contributions to Education, no. 6, School of Education Series.) Evanston, Illinois: School of Education, Northwestern University, 1932. 150 p.

- Kefauver, Grayson N., and others *The Horizontal Organization of Secondary Education* U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 2.
- Roberts, Lakin Fiske *The Administrative Effects of Reorganization in Small High Schools of West Virginia*. University of Iowa Studies in Education, vol. 4, no. 8. Iowa City University of Iowa, 1928 61 p
- Spaulding, Francis T., and others. *The Reorganization of Secondary Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 5. 423 p
- Stetson, F. L. *The Organization and Administration of Standard High Schools*. Studies of Secondary Education in Oregon, no. 1 Eugene. The University of Oregon, 1931, pp. 205-96.

For those who are especially interested in the relation of high schools and colleges in general, and the nature and influence of college admission requirements in particular, the following materials may be helpful (The student who wishes material which is more general and introductory in character will do well to select appropriate chapters in general books on the secondary school which are listed in the introductory chapter) The *Seventh Yearbook* of the Department of Superintendence may serve as a comprehensive introduction to problems in this field. Its content is very inclusive and should be used selectively. The book by Pressey and Pressey is a manual designed to show the high-school student what abilities he should acquire if he is to succeed in college. It is based on the results of research by its authors. The other materials are likewise based on results of scientific research, but have been prepared in the form of technical reports.

- Brammell, P. Roy: *Articulation of High School and College* U.S. Office of Education Bulletin, 1932, no. 17 National Survey of Secondary Education, Monograph no. 10
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ENGLISH LANGUAGE AND LITERATURE

THE field of instruction commonly designated as "English" is in many ways the most important part of the secondary-school curriculum. Practically all secondary-school pupils are enrolled in English courses throughout their years in school. The subject is more frequently required for admission to college than any other subject. Official commissions and professional authorities ordinarily assign to English a very prominent place in the secondary-school program of studies. During several decades of high-school development no other subject has received more favorable treatment or has become more substantially established.

Recent trends in the teaching of English. In circumstances of this sort it might be expected that instruction in English, lacking the stimulation which comes from criticism and opposition, might exhibit the common tendency of educational enterprises to lapse into deep ruts of tradition and antiquated convention. There is considerable evidence of the persistence of time-worn custom, but, on the other hand, there is remarkable significance in the tendency of teachers of English and authorities on English instruction to experiment with new procedures, to develop new functions and services. Although these innovating tendencies seem to be increasing and many of them are so recent as to make it difficult to know whether they will become widely established in school practice, even the person who is rather familiar with secondary-school conditions will be impressed with the breadth and variety of trends in the field of English.²

Current trends in English instruction are perhaps best understood in the light of earlier practice. During the first two decades of the present century instruction in English, like other phases of the educational program of the secondary school, did not change greatly. Dur-

² An excellent method of getting a quick grasp of these trends is to spend a few hours in examining the contents of the recent volumes of *The English Journal* (High School Edition)

ing this period English teachers were concerned primarily and somewhat distinctively with three tasks. They interpreted and explained in considerable detail the content and form of a small number of standard literary classics. They sought to produce understanding of some of the details of grammar. They attempted to improve the linguistic proficiency of their pupils, chiefly in connection with written composition. Sometimes these matters were dealt with separately, even in separate courses. In other instances they were taught in combination.

Since the high-school pupils of that period were — relatively speaking — a highly selected and homogeneous group, there were no serious difficulties in carrying on the program without much change. The pupils' cultural backgrounds were sufficiently similar to those of their teachers to make it unnecessary for the teacher of English to give much thought to what we now designate as objectives or to curriculum revision. The teacher had only to pass on to the pupils as much as possible of what had previously been passed on to the teachers in order to make the instruction in English reasonably effective and satisfactory. There were, to be sure, some criticisms of English instruction. Business men and college professors often agreed that high-school graduates were deficient in ability to spell and to write grammatically, and cynics sometimes remarked that pupils having studied the classics showed no tendency to pay further attention to them. But on the whole the program of English instruction was not much criticized and not much altered until the years when boys and girls came crowding into the secondary school in such numbers and heterogeneity as to disturb its academic tranquillity and stimulate swift changes.

Some of these changes represent immediate modifications which English teachers found it necessary to make in order to adapt their conventional functions to the new strangers who enrolled in high schools. But the influx of pupils emphasized the necessity for fundamental reconsideration of the purposes of high-school English instruction. The consequent revision of objectives produced far-reaching changes in instructional practices in secondary-school English.

Influence of college admission requirements. Although the revision of objectives was precipitated by rapid increase in the secondary-school population it was in many respects an outgrowth of an older and gradually increasing resentment towards the college entrance requirements

in English. Not many years after the civil war Harvard College had stipulated that candidates for entrance should write compositions based upon the study of works of standard authors. This requirement was promptly imitated by other colleges. The colleges and their representative agencies graciously explained that they had no intention of prescribing the high-school curriculum in English. But they seemed to be neglectful of the fact that their entrance requirements actually had that result, since there were few high schools sufficiently large to provide more than one English curriculum. So effective were these collegiate influences upon the English work of the secondary schools that anyone who wishes to know what classics were prescribed for entrance fifty years ago in the colleges need not consult the entrance examinations of that day. He will find them well represented in the curricula of the rank and file of high schools of today.² After the turn of the century, high-school English teachers became increasingly restive under the impositions of the colleges. In 1911 the English Round Table of the High School Section of the National Education Association was organized to serve as an aggressive agency for protest. This organization undertook to canvass national sentiment among high-school English teachers concerning the influence of college entrance requirements upon the high school, the status of aims of high-school English courses and desirable modifications therein, and the possibility of formulating entrance prescriptions not in terms of course content but in terms of certain abilities to be expected of candidates for admission to colleges.

The work of the "English Round Table." The work of this committee is significant chiefly because it stimulated nationwide interest among English teachers in the general movement toward the reorganization of secondary education. This movement was sharply accelerated by the special commission appointed for the purpose by the National Education Association. The National Joint Committee on English represented this commission and the National Council of Teachers of English. Its work has had decisive influence upon the recent development of English instruction in this country and its

² See John E. Stout. *The Development of High-School Curricula in the North Central States from 1860 to 1918* Supplementary Educational Monographs, no. 15 Chicago University of Chicago Press, 1921 322 p

See also Dora V. Smith. *Instruction in English*. U. S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 20 89 p.

published report quickly became both the symbol and the prophecy of significant trends in secondary-school English instruction.³

A functional conception of the teaching of English. In presenting its general point of view the committee emphasized the assertion that "the college preparatory function of the high school is a minor one." It affirmed the desirability of preserving "a reasonable uniformity of aims and a body of common culture" as being compatible with the necessity of new treatment to meet a situation in which high-school enrollments were increasing rapidly. It recommended the conception of English language instruction as functional in actual communication, not as merely a formal subject in which the use of symbols is to be attained "quite apart from an interesting and valuable content." It suggested also that there should be distinction between "English as training for efficiency" and "English as training for the wholesome enjoyment of leisure."⁴

In their entirety the specific recommendations of this committee report are a rather complete outline of the various trends which characterize English instruction in our more progressive high schools today. They serve well as points of departure in an examination of current educational practices.

INSTRUCTION IN WRITTEN AND ORAL EXPRESSION

It is worthy of note that the report dealt separately with literature, composition (written expression), and oral expression, apparently implying that they should be similarly distinguished in instructional practice. It was, however, specifically stated that the entire field of English instruction has, or should be made to have, one common characteristic. "The subject matter of English consists primarily of activities, not of information. It provides the means for the development of ideals, attitudes, skill and habits rather than for the acquisition of a knowledge of facts and principles. That is to say, English as a high-school study is to be regarded primarily as an art, not as a

³ Hosc, James Fleming, Chairman: "Reorganization of English in Secondary Schools," Report of the National Joint Committee on English Representing the Commission on the Reorganization of Secondary Education of the National Education Association and the National Council of Teachers of English. U.S. Bureau of Education Bulletin, 1917, no. 2. 181 p.

⁴ *Op cit*, pp 26 ff

science, and is to be learned by practice rather than by generalization." ⁵

This emphasis upon functional treatment is particularly noticeable in the teaching of composition. The report denied the existence of extensive "mental discipline" of a general character as an outcome of "formal work" in English grammar ⁶ It asserted that the "chief function of language is communication. Hence, the activities of the English classroom must provide for actual communication" ⁷ The report recommended that there should be instruction only in those elements of grammar which actually function in improving the linguistic abilities of pupils. Lacking adequate evidence to indicate what elements of grammar are actually functional, the committee was unable to make definite specifications concerning it.

Variety and confusion in English instruction. There have since been numerous attempts to discover through special investigation the kinds of linguistic usage in which there is occasion for the application of grammatical concepts and the possibilities of improving written expressions through instruction in grammar. ⁸ The findings of these investigations do not provide adequate evidence with respect to the comparative merits of instruction in grammatical concepts and specific training in expression. It is then not surprising that English instruction in written expression should exhibit considerable variety and confusion. There seems to be, at present, no possibility of determining with any finality the types of instructional procedure and curriculum content which will most effectively improve the abilities of secondary-school pupils to express ideas clearly and acceptably in writing. There are, however, certain matters which may well be considered in the effort to improve this work. In the first place, it seems probable that one reason for the characteristic failure to discover to what extent grammatical concepts may be functional arises from the neglect of educators to see the significance of pupil differences in intelligence. We can reasonably assume that the relatively intelligent pupil would

⁵ *Op. cit.*, p. 33

⁶ *Ibid.*, chapter VI. Report of the Committee on Composition in the Seventh, Eighth, and Ninth Grades, pp 36-44.

⁷ *Ibid.*, p. 27.

⁸ See R. L. Lyman, *Summary of Investigations Relating to Grammar, Language, and Composition*. Supplementary Educational Monographs, no 36. Chicago University of Chicago Press, 1929 302 p

at least be able to apply grammatical concepts to specific functional situations, whereas his less intelligent fellow pupil, having less ability to "transfer" generalizations to specific instances, would have to be trained in terms of specific details of functional usage. It also seems certain that the relatively intelligent pupil has both the need for and the capacity to acquire a relatively large number and variety of abilities in written expression, as compared with the decidedly few needs and meager capacities of the less intelligent pupil. Naturally careful attention to these differences in need and educability in relatively bright and dull pupils will produce definite and appropriate direction concerning the best ways to produce improvement in linguistic expression.

Varying standards of English usage in different departments of instruction. Another matter which may merit consideration, although it is a subject for conjecture rather than dogmatism, is the possibility that the standards of written expression which English teachers ordinarily attempt to impose upon their pupils are unreasonable both in kind and in amount. Obviously the standards adhered to by English departments are not ordinarily supported by other departments of instruction. This situation will later be considered from another standpoint, but in this connection it may fairly be asked whether the English teacher is reasonable in recommending types of performance which teachers of other academic subjects do not demand of their pupils. A point to be remembered in this connection is that schools generally are often criticized for their over-emphasis upon linguistic matters. The typical secondary-school pupil probably has more occasion to use his writing abilities in school than he is likely to encounter elsewhere. Possibly one very desirable means of solving the English teacher's difficulties in finding ways to produce satisfactory competence in written expression is the reduction of minimum performance standards so that they correspond to the standards which seem to be necessary in connection with other secondary-school subjects.

It is possible also that, regardless of the standards which may eventually be accepted as reasonable, instruction or training in written expression may be made more effective through individualization. The desirability of this emphasis is supported both by the findings of many of the investigations in this field and by current trends in school practice. Pupils' deficiencies in written expression are to a considerable

degree individual. Even among classes which are relatively homogeneous as to intelligence and general scholastic accomplishment there are marked individual peculiarities with reference to specific elements of usage in written composition. In many progressive schools there is increasing effort to improve written work through individual diagnosis and special remedial training. Although available materials and procedures for diagnosis and cure are not as yet entirely adequate, this approach to the problem is definitely promising.

"Creative writing." Somewhat related to the matter of reasonable standards which has been mentioned previously is the desirability of distinguishing between linguistic proficiency from the standpoint of general personal adequacy in the efficient conduct of everyday affairs, and special excellence in what is sometimes called creative writing. It is natural that the English teacher, who is to some degree a special devotee of belles-lettres, should perhaps assume that his special interest deserves to be a common possession. This assumption frequently colors training in written composition more generally than is warranted by the present and future needs of the majority of secondary-school pupils. Although there is no satisfactory statistical evidence upon which to base the assertion, persons who are familiar with the practice of teachers of English composition are acquainted with the tendency to esteem originality, which frequently takes the form of the bizarre, the exotic, or the egregious. There is also a considerable tendency to encourage pupils to attempt the production of poetry, short stories, or plays. These are undoubtedly worthy matters. At least a few persons should be encouraged to develop special aptitudes in these directions if they have the aptitudes. Also some opportunities should be provided in these directions for the discovery of such aptitudes. But it seems obvious that the majority of pupils need chiefly to develop ability to express ideas directly, accurately, and straightforwardly. Any considerable emphasis upon what the pupil recognizes as special literary stunts is likely in most cases to be profitless, if indeed it does not give him the impression that what is esteemed as good writing is something which he neither cares about nor is capable of doing. In some of the larger and more progressive schools there is an increasing tendency to offer opportunities for training in various types of creative writing by means of special elective courses to be taken by relatively few and promising pupils. This seems to be a

commendable practice, especially if it permits the basic English training commonly required of all pupils to be concerned chiefly with the production of ability to write adequately clear and straightforward English about ordinary matters.

Relation of English department to other departments. Another problem of great importance involves the relationship of English training to the work of other secondary-school departments of instruction. The committee on the reorganization of English recommended a form of organization which would make the establishment of good habits of thought and expression a co-operative enterprise of teachers of all secondary-school subjects. "What the pupil learns in English he must be required to use in other classes."⁹ This principle seems to have been very widely accepted. Many schools have attempted to set up practical plans by means of which English departments stimulate other departments of instruction in enforcing higher standards in written work and serve as auxiliary agencies in giving remedial training to those pupils whose written expression in other subjects exhibits deficiencies. Although these co-operative projects are increasingly frequent, they commonly suffer certain marked handicaps. One of these difficulties is caused by the assumption of teachers of other subjects that English expression is not properly their concern. Accordingly they look upon their own efforts in behalf of better expression as a special favor to the English department, something to be done graciously if time and energy suffice or to be conscientiously neglected if their own responsibilities are pressing. It must be admitted that the very presence of English as a special department of instruction fosters this conception. Another common handicap is the lack of standards of pupil performance in English expression which are sufficiently definite and objective. Lacking such standards, pupils and teachers alike tend to become confused and discouraged. This handicap alone is enough to weaken seriously any attempt to make the production of competence in written expression a common enterprise of the entire school.

However, these difficulties are not insurmountable. It should be possible to determine at least certain minimal standards of performance to be applied to the several grade levels and perhaps further refined to apply to various levels of pupil capacity. In fact this should be done

⁹ James F. Hosic: *Op. cit.*, p. 28.

irrespective of methods to be employed in attaining them. It should be possible also to determine standards which would be acceptable to teachers of all subjects. Given such general acceptance of reasonable and definite standards, training in written expression might well become a general responsibility of the entire school. In this case there is the possibility that there would be little place for a special and separate curriculum in English composition to be taken in its entirety by all pupils in the school. The services of the English teacher might then be needed, as far as written composition is concerned, only to provide special remedial training for individuals requiring it and to provide instruction in special elective classes for pupils whose special interests and abilities make it appropriate. Whether such arrangements will produce satisfactory results obviously cannot be fully determined until there has been much practical trial and adjustment in many schools. But it is noteworthy that recent trends in forward-looking schools are definitely in this direction.¹⁰

Oral expression. It is significant that, although it did not entirely omit consideration of oral expression, the report of the committee on the reorganization of English gave relatively little attention to it. The practice of the secondary schools seems to reflect the attitude represented in the report. Apparently here is a situation in which the secondary schools have not sufficiently recognized the significance of their claim that they are not primarily concerned with preparation for college but rather with preparation for living. Even if there were good reason for believing that prospective college students should be prepared to write more than they speak, there seems to be no reason for assuming that the prospective citizen will have more occasion to write than to talk. There is no need of elaborate statistical analyses of the responses to thousands of questionnaires to indicate that there are exceedingly few persons who have more need for writing well than for speaking well. Even in the secondary school the pupils are continually expected to talk, if for no other reason than to demonstrate to their teachers whether they know what they are expected to talk about, but the secondary school makes only inconsequential efforts to improve the oral abilities or to remove the disabilities of its pupils.

English teachers, to be sure, are giving some attention to this mat-

¹⁰ See R. L. Lyman, *The Enrichment of the English Curriculum*. Supplementary Educational Monographs, no. 39. Chicago: University of Chicago Press, 1932. 252 p.

ter. Some teachers give to their pupils sketchy instruction concerning etiquette in the use of the telephone, a service which will surely be appreciated by users of party lines. Sometimes the attempt is made to give pupils in English classes practice in conversation. These pupils also get considerable practice in reading aloud. Furthermore, pupils are commonly given practice in presenting "oral topics" or special oral reports in which the individual speaks to his class group. These activities are indicative of some recognition of the importance of oral expression, but to those who are familiar with the secondary-school program it is obvious that, in comparison with the unremitting efforts of English teachers to train their pupils in better modes of written expression, the attention paid to oral expression in the typical high school is meager. Furthermore, it is usually ineffective in producing improvement. The chief reason for its ineffectiveness lies in the fact that what is intended to be training is merely practice — practice in which the pupil continues to exhibit the qualities of vocal tone and articulation which have long since become habitual.

Causes of neglect of the oral arts. Undoubtedly, one of the causes of this comparative neglect of oral expression is the fact that the examinations with which schools are accustomed to test scholastic achievement are written examinations. Even in language classes in which adequacy in oral expression is a primary objective the final examinations which determine the pupils' permanent ratings are ordinarily quite free from oral elements. Since preparation for examinations looms large in the teacher's view of his tasks it is natural that he should be influenced to slight the oral elements which are not covered by his examinations.

Another causal factor in the lack of emphasis upon oral training in the secondary school is the absence of any strong, definite, and articulate demand for such training coming from without the school. Laymen generally are apparently less disturbed by discernible deficiencies in oral expression than by weaknesses in written expression. Possibly these differences in attitude, rather than being true indications of the comparative needs for proficiency in written expression and in oral expression, are merely symptoms of the influence of the layman's scholastic training.

A further hindrance in adequate attention to oral expression is the content of textbooks commonly used by teachers of English. So great

is the teachers' dependence upon their textbooks that, even in cases in which the course of study definitely calls for training in oral expression, favorable intent and actual effort to provide appropriate training are ineffective unless the content of the textbook offers adequate guidance for the planning and conduct of adequate instruction and training. However, it must be remembered that publishers of textbooks are disposed to provide the kinds of books which are in sufficient demand to make their sale profitable. Lack of adequate textbooks may reasonably be interpreted as evidence of lack of adequate vision on the part of secondary-school teachers.

INSTRUCTION AND TRAINING IN READING AND LITERATURE

The title of this section is particularly significant. It represents a gradual change in emphasis which reflects the sensitivity of English teachers to external pressure and which may prove to be a very serious threat to the permanence of English in the secondary-school program. The significance of this statement will become unmistakably clear when certain concrete trends are considered.

The trend away from instruction in literature and toward training in reading is of great importance, both for its intrinsic significance and because of its relation to minor eddies and ripples in the broad current of English instruction. Traditionally, instruction in selected literary classics has been a major portion of the work of high-school English teachers. During the nineteenth century these literary selections were specifically designated by the colleges. However, it need not be assumed that the classics so designated owe their presence in the high-school curriculum to the initiative of the colleges. Undoubtedly, the pressure of uniform entrance requirements has tended to establish certain selected classics in English curricula, but classics made their academic debut because teachers and educated laymen shared in their admiration of the classics and belief in their intrinsic merits. Even if the colleges had confidently allowed high-school teachers to choose their own subject matter the materials selected would almost inevitably have been classical, although there might have been more variety in the particular materials used in different secondary schools.

Various investigations of chronological trends in the development of

high-school curriculum content have shown that these classical selections have very persistently held their place in the English curriculum. Not only does their frequency of appearance in the curricula of various schools remain stable, but the amount of time devoted to them and the methods of instruction have not changed greatly. However, the purposes which they are intended to serve have been changing gradually. So great has the latter change become that the classical selections are being increasingly disparaged because they do not easily yield to newer purposes.

Earlier objectives of English teaching. It is somewhat difficult to compare the older objectives with the newer ones for the reason that it has only recently become fashionable among educators to formulate the objectives of school subjects in explicit and specific detail. The objectives of former generations of teachers were implied in what they did and in what they did not do. These earlier teachers of English were much concerned with what students in divinity schools know as scriptural exegesis. They caused their pupils to study intensively the meanings and connotations of literary selections. Since their literary selections were concerned chiefly with the portrayal of human character, this intensive study of literature was actually a study of the nature of individual humanity. The analysis and evaluation of behavior, motives and ideals, the mental and spiritual phases of individual personality and character — these were actually a major portion of the subject matter of the curriculum in English literature. It mattered little whether the literary selection happened to be a novel, a play, an essay, or a poem. In every case there was likely to be emphasis upon human nature and human ideals, the characteristic elements which have traditionally made literature and humanities synonymous terms. Teachers of literature also paid some attention to the characteristics of literature as an art-form. Their pupils were made to study the different common types of literature, to attempt analyses of the formal structure of particular selections, to acquire some familiarity with the historical development of literature and with the personal characteristics of some of the interesting men and women whose artistic works were represented in the English curriculum.

One thing which these earlier English teachers did not do in any emphatic way was to stimulate extensive reading. Apparently it did not occur to English teachers or to anyone else that there should be

any particular departmental monopoly of the stimulation of reading. Teachers in all departments of instruction made some use of books and ordinarily encouraged the reading of books. In fact, the entire secondary school was sometimes criticized for being somewhat too bookish. Probably one very good reason for this was the fact that the printing press, the lending library, and commercial advertising had yet to achieve their more modern miracle of making Americans voracious consumers of books and magazines.

Briefly, then, the pre-war instruction in literature was chiefly concerned with the analysis and evaluation of human character and ideals and with study of various features of literature as an art-form. These objectives were not commonly stated as specific purposes but they were rather natural results of a more or less traditional conception and practice.

Newer tendencies and purposes. After the war, the acceleration in the growth of secondary-school enrollments and the contemporary re-examination of the place of secondary education brought to the fore certain new purposes and introduced tendencies in new directions. Several factors militated against the continued use of the customary classics. As we have seen, they had suffered the misfortune of having been required for entrance to college, which was enough to make them objects of suspicion among folk who had lost all patience with the arbitrary indignities imposed by the colleges.

An added objection to the classics was the actual inability of a new generation of secondary-school pupils to understand these literary selections. Their form, their language, and their content were obviously beyond the grasp of thousands of boys and girls in secondary schools.

The time was ripe for change. In fact, as each year brought new thousands of pupils to English teachers, it began to seem somewhat over-ripe. The change which resulted has since been reflected practically in many ways, but there was an important change in fundamental purpose. Whereas the teaching of literature had previously been conceived as instruction in a field of subject matter, it was now to be an occasion for training in activities, whereas instruction in literature had meant insight into human character and ideals and understanding of literature as an art-form, it was now to become the development of habits of enjoyment in reading. This new policy was

authoritatively approved and emphasized in the report of the committee on the reorganization of English. The report stressed the desirability of stimulating the habit of "turning to books for entertainment, instruction, and inspiration as the hours of leisure may permit." The "immediate aim" of the teaching of literature is stated thus: "To teach them (the pupils) to read thoughtfully and with appreciation, to form in them a taste for good reading, and to teach them how to find books that are worth while."¹¹

In some of its general and introductory discussions of the teaching of English the report does mention the importance of "weighing and judging human conduct," and in the specific recommendations concerning the senior grades there is definite recognition of the importance of the matters which had previously been given a large place in the teaching of literature.

Literature is primarily a revelation and interpretation of life; it pictures from century to century the growth of the human spirit. It should be the constant aim of the English teacher to lead pupils so to read that they find their own lives imaged in this larger life, and to attain slowly, from a clearer appreciation of human nature, a deeper and truer understanding of themselves.

The study of literature should arouse in the minds of pupils an admiration for great personalities, both of authors and characters in literature. No man is higher than his ideals. Human beings grow unconsciously in the direction of that which they admire. Teachers of English must, then, consciously work to raise the pupils' standards of what is true and fine in men and women. The literature lesson must furnish the material out of which may be created worthy and lasting ideals of life and conduct.¹²

It is obvious that in these statements there is adequate basis for the assumption that the high-school curriculum in English should be concerned with the characteristic and significant elements in human nature, and it may be noted in passing that these statements are not entirely consistent with the assertion that the subject matter of English consists primarily of activities, not of information, and that learning is to be by practice rather than generalization. Apparently, there was some confusion or disagreement on the part of the persons making these recommendations. In these circumstances curricula in English may reasonably be expected to exhibit considerable diversity and compromise, and the expectation is abundantly fulfilled.

¹¹ James F. Hosis, Chairman: *Op. cit.*, p. 30.

¹² *Ibid.*, p. 63

Trend toward extensive reading. Practice varies from school to school and even among teachers within particular schools. However, there are but two main trends. In more progressive schools there is an increasing tendency to emphasize the stimulation of reading more and better books, irrespective of their subject matter. In the more conservative schools there is continuing emphasis on intensive study of traditional classics. And in many instances, of course, there is attempt to serve both ends. Unquestionably, the trend of change is in the direction of extensive reading. Emphasis upon extensive reading customarily implies development of habit formation, reading as a pastime, and the inclusion of all fields of subject matter. Intensive analysis of material not immediately pleasurable is taboo and the primary importance of insight concerning human nature and the spirit of man seems to have been forgotten.

The tendency to expand the scope of the English curriculum, so as to make it cover even those fields of knowledge which are already pretty well represented in other divisions of the program of studies, has recently been officially confirmed by the National Council of Teachers of English. In specifying the topics to be included in the teaching of secondary-school literature the curriculum commission of the National Council recommends that the English teacher shall teach natural science, history and the social studies, the arts, and humanities.¹³ For example, it is proposed that the curriculum in English shall include such matters as these: the origin of man and of the world, the theory of evolution, invention and discovery, the formation of the solar system; the early world of man, the social, cultural, and economic expansion of peoples of other times, present-day social institutions, travel and exploration, industrial expansion, widening trade horizons; music, the drama, and other branches of the arts.

Undoubtedly there is some merit in this plan. It seems well to have pupils read books within their intellectual grasp and to cultivate enjoyment in reading during leisure. But this trend cannot be adequately evaluated in terms of its own intrinsic merits; it must be considered also in relation to trends outside the field of English instruction. Actually teachers of other subjects are giving more and more

¹³ Curriculum Commission of the National Council of Teachers of English: *An Experience Curriculum in English*. New York: D. Appleton-Century Co., Inc., 1935 323 p. See especially chap. V, "Literature Experiences, Grades 7-12."

attention to pupils' reading. Teachers of science and the social studies encourage their pupils to read widely in connection with their subjects. Even in the teaching of mathematics, foreign languages, and the aesthetic and practical arts reading is encouraged, although the paucity of appropriate books is a hindrance. The encouragement of reading promises to become a function common to all fields of high-school instruction. The growth of school and community libraries is also very important in this connection. It is increasingly common even in the smaller high schools to expand the physical facilities of libraries and to provide professionally trained librarians who are qualified to stimulate and direct the reading interests of pupils. Very likely the development of pupils' reading interests will be well served through the co-operation of teachers of school subjects with the staff of the school library. If this be true, it seems questionable whether teachers of English will serve any distinctive or permanently valuable purpose in seeking to stimulate and guide the development of reading interests, irrespective of subjects.

Growing recognition of the efficacy and value of special techniques for the diagnosis and remedial treatment of deficiencies in reading does, however, offer a distinct opportunity for secondary-school English teachers. Secondary-school pupils who are incompetent to interpret print are seriously handicapped in all academic studies. They will also be handicapped in meeting many normal situations in out-of-school life. The mere fact that their experience in elementary school has not made them able to read implies that further schooling will not ordinarily remove this handicap. However, special research and practical experience in secondary schools which have provided specialized and expert remedial training in reading show the effectiveness of specialized service for individuals whose reading habits are inferior. The provision of this service, organized so as to reach the individual pupils who need it, is obviously a necessity in most secondary schools. Particularly if they will take pains to obtain teachers who are competent to supply expert diagnosis and training, English departments will find here an important function.²⁴

Need for instruction in the humanities. And what of the humani-

²⁴ For a comprehensive treatment of the whole field of reading see National Society for the Study of Education: "The Teaching of Reading: A Second Report," *Thirty-Sixth Year-book*, Part I. Bloomington, Illinois: Public School Publishing Company. 1937. 442 p.

ties? Even if it seemed desirable to center in one department major responsibility for the production and direction of reading habits there would still be a large and important place in the curricula of high schools for the study of individual human nature. We have seen that this was once an important aspect of instruction in English. If we admit that the high school does well to offer in its program of studies opportunities for the development of insight concerning the world of nature (in the natural sciences) and of organized society (in the social studies), surely we can ill afford to neglect the desirability of developing in boys and girls the fullest possible insight into the characteristics of human beings which make them distinctly human.¹⁵

This need not be interpreted as suggesting a return to the traditional classics. It has already been adequately demonstrated that they are ill suited to the abilities and disabilities of large numbers of secondary-school pupils. It does, however, suggest that no time should be lost in reorganizing the curriculum for the proper and adequate presentation of insights in the field of the humanities and in selecting pedagogical materials to that end. Undoubtedly, much of this material should be drawn from literature, both ancient and modern. The writer of literature is characteristically a discriminating observer and skilled interpreter of the tangled subtleties of the skein of human nature. It has been the age-old business of the dramatist, the poet, the essayist, the novelist, and the mere teller of tales to make philosophy, psychology, ethics, or shall we say humanity, within the ready grasp of the untutored layman.

INSTRUCTION IN ENGLISH AND THE GENERAL OBJECTIVES OF THE SECONDARY SCHOOL

In addition to consideration of their intrinsic merits, there must be consideration of the relationship of the major elements of English instruction to the major objectives of the secondary school as an institution. Obviously, in developing proficiency in the use of the vernacular, the English curriculum increases the pupil's potential abil-

¹⁵ The Committee on Objectives of Secondary Education, of the 1927-28 Commission on the Curriculum of the Department of Superintendence of the National Education Association, in stating four major objectives, gave first place to the development of understanding and appreciation of individual human nature. See Thomas W. Gosling and others, "The Objectives of Secondary Education," chapter II of "The Development of the High-School Curriculum," *Sixth Yearbook* of the Department of Superintendence, 1928, pp. 38-58.

ity to understand his world and at the same time fosters a means of increased social solidarity. In acquiring the ability and the habitual disposition to read competently the individual is enabled more easily and surely to obtain information concerning those aspects of his world which lie beyond the limits of his immediate experiences. In developing skill in oral and written expression the pupil gains mastery of instrumentalities which are practically universal in their usefulness to him in his personal activities and endeavors. The attempt to make the development of proficient use of the vernacular a special or peculiar function of the English teacher is nevertheless beset with limitations which may actually result in disservice to the purposes of the school. Language is so intimately a part of thinking that the occasions for its use should be the matters to which the pupil's thoughts are directed. In other words the subjects about which a pupil learns to read and write and talk ought to be the subjects with which he must be concerned for other reasons. Mastery of the vernacular is not effectively or suitably developed in a factual vacuum. Incidentally, it is probably for these reasons that English teachers are being urged to expand their attention to the natural sciences, the social studies, and the arts. Although it is not entirely inconceivable that English teachers might eventually assume chief responsibility for all of these fields, it seems much more likely, and somewhat more reasonable, that instruction in these various subjects will continue to be the responsibility of other teachers. The development of normal competence in the use of the vernacular should be a joint responsibility of all divisions of the curriculum. For the rank and file of pupils English as a special division of the curricular program has no distinctive or peculiar function as regards the development of linguistic proficiency.

With respect to the provision of opportunities for the development of exceptional degrees of ability on the part of pupils of special aptitude, however, the field of English offers a distinctive contribution to the general functions of the secondary school. Although pupils whose aptitudes and needs call for exceptional ability in the use of the language arts are relatively few in number, these opportunities should be administered through teachers who are themselves specialists in these arts. The nature of the language arts is such that they can be reasonably well provided for in a school. The special equipment and the environmental conditions which are appropriate to their effective

development can be supplied without undue difficulty. There are indeed few other types of specialized ability which can be more readily and effectively developed within the characteristic environment of a school. It is both feasible and desirable for the school to provide specialized opportunities wherein certain pupils may discover and develop their talents for various aspects of the language arts.

Much more important than these considerations, however, is the fact that instruction in literature offers a distinctive opportunity for an essential contribution to the achievement of the secondary school's major purpose. The distinctive character of this contribution is emphasized in a statement by Alexander Inglis.

In a very important sense literature is to be conceived as a social-science study in the secondary school, when properly conducted occupying a position by no means inferior to that of history, economics, and civics. History deals primarily with group experiences and economics or sociology with abstract principles. Civics and literature both reach the field of individual conduct, but start from opposite extremes, literature dealing predominantly with individual conduct and having little to do with the formal duties of citizenship. With the thousand and one phases of everyday behavior history, sociology, and economics have little or nothing to do. Even civics in its broadest sense has relatively little to do with those phases of life's activities. On the other hand that is exactly the field where literature, in its broadest and best sense, reigns supreme.¹⁶

If English instruction somewhat indiscriminately seeks to increase the pupil's understanding of a variety of subjects some of which are already being taught by teachers for whom they are major responsibilities, and who are for that reason alone presumably better qualified to teach them, it may rightfully claim to serve the school's general purpose to some extent. English teachers are not of course expected to be better teachers of natural science, history, economics, or sociology than science teachers, history teachers, economics teachers, or sociology teachers are. Even if the English teacher were qualified to assume the special responsibilities of his colleagues, these distractions do not justify neglect of instruction in the humanities. It has been suggested previously that certain aspects of the traditional emphasis on literature and of the nature of literature itself make it a most suitable medium for the study of human nature. It is pertinent here to note that the in-

¹⁶ Alexander Inglis *Principles of Secondary Education* Boston. Houghton Mifflin Co., 1918, pp. 438-39

sights thus developed are essential bases for the direction of personal conduct and powerful influences in the stimulation and direction of the fraternal goodwill which is indispensable in a democratic society.

Obviously, the mere inclusion of instruction in literature as a part of the secondary school's program of studies is in itself no guarantee that these values will be achieved. If the term literature is so broadly interpreted as to include the "Boy's Book of Remarkable Machinery" or "First Steps in the Enjoyment of Pictures,"¹⁷ predominant concern for the interpretation of individual human nature, human motives and personal conduct is made improbable. Even if the literature selected for study deals directly with the stuff of human life, there is no surety that it will be so taught as to emphasize these matters. Not uncommonly literary classics whose dominant theme is the life and spirit of man are taught as if they had been written to demonstrate their authors' characteristics as literary craftsmen, or to supply a plentiful stock of grammatical complexities, figures of speech and strange phrases with which to bewilder bored pupils. Such minor matters have their place, but, although they may loom large in the minds of English teachers, they are not subjects of vital concern to the normal individual, either from the standpoint of his conduct of life's affairs or from a broad social viewpoint. If, however, instruction in literature is devoted unequivocally and directly to the purpose of developing insight and appreciation of the characteristic qualities, the motives, the aspirations, the potentialities, the limitations, in short, the humanity of mankind, its value to the individual and to society is great.

Briefly, the major issues and problems in the high-school curriculum in English language and literature can be put in the form of a few questions.

- 1 *Can the secondary school determine definite and objective minimum performance standards in written and oral expression to be developed in and required of pupils in various ability groups at each of the grade levels of the school?* A positive and practical solution is urgently needed, even though it is not immediately complete and final. It seems desirable to encourage the tendency to make the establishment of reasonable performance standards in linguistic usage an enterprise common to the entire school, with teachers in all departments equally responsible for their enforcement, although individualized remedial training by clinical

¹⁷ These are included in the miscellany recommended specifically by the Curriculum Commission of the National Council of Teachers of English.

specialists will be desirable for pupils whose disabilities are exceptional. Available evidence concerning school practice suggests that the emphasis upon oral expression is inadequate in scope and somewhat deficient in effectiveness. Although evidence concerning the influence of the study of grammar upon improvement in linguistic usage is now so inconclusive as to provide little justification for its inclusion in the secondary-school program, it seems desirable to investigate fully its potentialities in the case of the bright students.

2. *Should the stimulation and direction of reading habits be a distinctive function of the English curriculum, or should it be a common responsibility of teachers of all subjects?* Present tendencies are in both directions, and it is impossible to predict the final outcome. However, the increasing tendency among high-school teachers generally to foster extensive reading and the growing popularity and effectiveness of reasonably adequate school libraries suggest the inappropriateness of making the English curriculum distinctively an avenue for the development of reading interests.
3. *Should the secondary school permit the study of humanity, once a prime element in the English curriculum, to be neglected or abandoned?* It is difficult to see how any other field of study could lay claim to greater importance. Its significance and value seem to be beyond dispute. If it is to be retained, English teachers, who have long been concerned with it, should continue to be responsible for it. Also, for this purpose selections from literature should be used, although new selections must be generously and intelligently provided to suit the needs of many pupils.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. It is sometimes asserted that books and reading are rapidly losing their supremacy as media for recording and communicating ideas, that the movies and the radio, and other technological developments soon to come may make books obsolescent for most folk. To what extent is this true? What is its bearing upon instruction in English?
2. Analyze a representative sampling of the "standard classics" ordinarily studied in English classes in order to determine their emphasis upon conceptions of human personality or character.
3. Make a similar analysis of a comparable number of books selected at random from a list of books recommended to secondary-school pupils for "extensive reading."
4. Find out what teachers in subjects other than English do to foster extensive reading on the part of their pupils.
5. Is it to be expected that minimum essentials in linguistic usage will be equally appropriate for pupils of all levels of ability?

6. Obtain information concerning the tastes in reading matter of a considerable number of teachers of English (or of teachers of various subjects). How do these preferences correspond to the recommendations which English teachers make to their pupils?
7. Analyze and evaluate different types of research methods which have been used in attempting to determine what should be taught with reference to English usage.
8. Examine reports of research studies of the effectiveness with which English teachers have fostered enjoyment of reading among their pupils.
9. Consider the importance of literature as a form of art in comparison with other arts — music, architecture, painting, and the like. Compare your judgments of the relative importance of these arts with the relative amounts of time devoted to the study of literature and other arts in the secondary school.
10. Obviously, English teachers commonly undertake more or less to attain a wide variety of objectives. Consider these objectives, and determine which one should be the chief goal of instruction in this field.
11. Having in mind the desirability of stimulating the general development of varied reading interests in boys and girls, consult individually the teachers in each of the departments of the secondary school, including the librarians and teachers of physical education, as well as the janitor or custodians of the building and grounds, in order to find out, first, whether they feel any particular concern for the stimulation and guidance of pupils' reading interests, and, second, what kinds of materials they would be pleased to have boys and girls read for their good and their pleasure. Plan to use the facts you have found as an approach to the problem of working out methods whereby the English teacher and the other members of the staff may co-operate more responsibly and effectively in guiding the development of appropriate reading interests in pupils.
12. Select some important phase of training in English (oral usage, written expression, or reading competence, or certain special phases of one of them) and analyze in some detail the abilities which the English teachers in a secondary school are trying chiefly to develop. Then analyze and evaluate the performance of the English teachers' pupils as they are engaged in courses or other school activities outside the English department. Develop plans for using your findings as a basis for more effective production of these abilities in pupils.
13. Although it may seek to develop the pupils' English abilities as fully as possible, regardless of their present level, there are presumably certain minimal standards of ability in reading, in written expression, and in oral usage which are very important in the sense that any pupil will be seriously handicapped if he leaves the secondary school without having attained them. The school should not be content to help its pupils

barely to meet these minima; it should be even less content to have its pupils fail to attain them. Since schools do not ordinarily have any specifically defined minimal standards in these matters, they must be developed before they can be applied with any certainty that they are appropriate. Plan as systematically as possible to lay the groundwork for the development of such minimal standards in some aspect of ability in English. Leonard's study of the judgments of qualified laymen suggests that the standards advocated by English teachers should at least be supplemented by other criteria. One possible mode of approach might be to find out what standards of attainment in specific aspects of English are agreed upon as minimal by all teachers in a secondary school.

14. Make a fairly detailed analysis of the nature of the factual content of books read by pupils under the direction of their English teachers in order to find out what the subject matter so studied actually is, and note to what extent it does or does not seem to overlap the other fields of training — for home-making, etc. Develop plans for using the results of this analysis as a basis for co-operative planning by teachers in various departments of instruction whereby each department will at least consider the desirability of attempts to reduce overlapping or duplication of effort and the possibility of increasing the total "coverage" of the instructional program in its entirety.

SOME MATERIALS USEFUL FOR FURTHER STUDY OF ENGLISH IN THE SECONDARY SCHOOL

General

Possibly because its sponsors are very articulate, the field of English instruction has been much written about. Although some of the books listed here are textbooks intended particularly for teachers of English, the majority of them are special studies which, in spite of their limited scope, are likely to be interesting for the general reader. The studies by Clapp, Sterling Leonard, and Waples and Tyler are definitely suggestive of social needs and values to which English instruction should contribute and in which it may find direction. All of these studies are informative and interesting. The book by Duffus is somewhat less factual, but similarly suggestive of ways in which English instruction may contribute to the enrichment of life. The textbooks by Craig, LaBrant, and Seeley are broadly indicative of the thinking of leading sponsors of English instruction. Although a score of years have passed since it was written, the chapter by Inglis contains a penetrating analysis of the potential values of English instruction. The report made under the chairmanship of Hosic has been referred to in the present chapter. The reader may wish to examine it in some detail, noting particularly the extent to which its recommendations have been embodied in recent trends in English instruction. Although the development of reading interests is

but one aspect of instruction in English, it is of some interest to everyone. Jordan's study briefly summarizes other studies prior to his own. The study by Terman and Lima is one of our most thorough studies of the reading interests of children; whereas Waples and Tyler, whose study has already been mentioned, show what kinds of reading are sought by adults in various occupations and situations. The White House Conference report is a useful source of information similar to that available in the study by Terman and Lima.

Although the study by Stormzand and O'Shea is somewhat specialized in character, it is of general interest because it served to stimulate much doubt concerning the matter of teaching formal grammar.

Those who wish to obtain in convenient form very brief summaries of experiments and research in English will find Lyman's monographs helpful. Up to the time of his death he was an assiduous compiler of all sorts of projects and studies in the field of English instruction. The summaries and bibliographies by Gray, J. Paul Leonard, and Lyman in the *Review of Educational Research* will be helpful to those who wish to do their own compilation of materials.

Some of the recent major emphases of the National Council of Teachers of English are concretely illustrated in their "Experience Curriculum" and in the other official publications of that body.

Clapp, John Mantale (Editor): *The Place of English in American Life*. Chicago: National Council of Teachers of English, 1926. 48 p.

Craig, Virginia J.: *The Teaching of High School English*. New York: Longmans, Green & Co., 1930. 372 p.

Curriculum Commission of the National Council of Teachers of English: *An Experience Curriculum in English*. New York: D. Appleton-Century Co., Inc., 1935. 323 p.

Duffus, R. L.: *Books: Their Place in a Democracy*. Boston: Houghton Mifflin Co., 1930. 225 p.

Gray, William S.: "Reading and Literature," *Review of Educational Research*, 2:29-34, 86-87 (February, 1932).

Hosic, James Fleming (Chairman): "Reorganization of English in Secondary Schools," Report of the National Joint Committee on English. U.S. Bureau of Education Bulletin, 1917, no. 2. 181 p.

Inglis, Alexander: "The Place of English in the Program of Studies," chapter XII of *Principles of Secondary Education*. Boston: Houghton Mifflin Co., 1918, pp. 420-46.

Jordan, A. M.: *Children's Interests in Reading*. (Contributions to Education, no. 107.) New York: Teachers College, Columbia University, 1921. 143 p.

La Brant, Lou L.: *The Teaching of Literature in the Secondary School*. New York: Harcourt, Brace & Co., 1931. 185 p.

- Leonard, J. Paul. "English Language, Reading, and Literature," *Review of Educational Research*, 4:449-61, 520-24 (December, 1934).
- Leonard, Sterling Andrus. *Current English Usage*. (English Monographs, no. 1) Chicago: National Council of Teachers of English, 1932. 232 p.
- : "The Supervision of English," chapter VI of Willis L. Uhl and others: *The Supervision of Secondary Subjects*. New York. D. Appleton & Co., 1929, pp. 248-304.
- Lyman, R. L. *The Enrichment of the English Curriculum*. Supplementary Educational Monographs, no. 39. Chicago: University of Chicago Press, 1932. 252 p.
- : "Language, Grammar, and Composition," *Review of Educational Research*, 2:35-42, 87-88 (February, 1932).
- : *Summary of Investigations Relating to Grammar, Language, and Composition*. Supplementary Educational Monographs, no. 36. Chicago. University of Chicago Press, 1929. 302 p.
- National Council of Teachers of English. Stella S. Center and Gladys L. Persons. *Teaching High School Students to Read*. New York. D. Appleton-Century Co., 1937. 167 p.
- : Ruth M. Weeks, Chairman. *A Correlated Curriculum*. New York: D. Appleton-Century Co., 1936. 326 p.
- Seeley, Howard F.: *On Teaching English*. New York: American Book Co., 1933. 391 p.
- Stormzand, Martin J., and O'Shea, M. V.: *How Much English Grammar?* Baltimore: Warwick and York, Inc., 1924. 224 p.
- Terman, Lewis M., and Lima, Margaret. *Children's Reading*. Second Edition. New York: D. Appleton & Co., 1931. 422 p.
- Waples, Douglas, and Tyler, Ralph: *What People Want to Read About*. Chicago: American Library Association and the University of Chicago Press, 1931. 312 p.
- White House Conference on Child Health and Protection. *Children's Reading: A Study of Voluntary Reading of Boys and Girls in the United States*. New York: The Century Co., 1932. 90 p.

Special Studies

Most of the studies listed below are unlikely to be of interest or even particularly readable for individuals who do not have well-established interests in the matters with which they deal or who have not become accustomed to the forms and statistical ceremonies which are the conventional earmarks of educational research. The novice should not attempt them unless he is willing to expend considerable effort in reading them, although he may find perusal of several of them a convenient way of getting some notion of the hard work that is represented in specialized research. If he

finds that he does not wish to read them in their entirety, he may find it helpful to examine their briefly stated conclusions. These warnings do not apply in a few instances. The textbook by Mirrieless is intended to guide the work of English teachers, and cursory examination of it will give the general reader some notion of what teachers are supposed to do when they try to teach boys and girls to write. The report by Shepherd and others is descriptive of the methods used in a university high school, and the little book by Simon is interesting and highly readable. It shows what difficulties Shakespeare had in gaining admission to our schools.

- Broening, Angela Marie: *Developing Appreciation through Teaching Literature*. Johns Hopkins University Studies in Education, no. 13. Baltimore: Johns Hopkins Press, 1929. 118 p.
- Burch, Mary Crowell: *Determination of a Content of the Course in Literature of a Suitable Difficulty for Junior and Senior High School Students*. Genetic Psychology Monographs, vol. IV, nos. 2 and 3. Worcester, Mass.: Clark University Press, 1928, pp. 163-332.
- Coleman, J. H.: *Written Composition Interests of Junior and Senior High-School Pupils*. (Contributions to Education, no 494.) New York: Teachers College, Columbia University, 1931. 117 p.
- Commission on English, Charles Swain Thomas, Chairman: *Examining the Examination in English*. Harvard Studies in Education, vol. XVII. Cambridge. Harvard University Press, 1931. 295 p.
- Crow, Charles Sumner: *Evaluation of English Literature in the High School*. (Contributions to Education, no. 141.) New York: Teachers College, Columbia University, 1924. 172 p.
- Eason, J. L.: *A Diagnostic Study of Technical Incorrectness in the Writing of Graduates of Tennessee County High Schools*. (Contributions to Education, no 64.) Nashville: George Peabody College for Teachers, 1929. 89 p.
- Fellows, John Ernest: *The Influence of Theme-Reading and Theme-Correction on Eliminating Technical Errors of Ninth-Grade Pupils*. (University of Iowa Studies in Education, vol. VII, no. 1.) Iowa City: The University of Iowa, 1932. 56 p.
- Gray, William S., with the assistance of Gertrude Whipple: *Improving Instruction in Reading: An Experimental Study*. Supplementary Educational Monographs, no. 40. Chicago: University of Chicago Press, 1933. 226 p.
- Gray, William S., and Munroe, Ruth: *The Reading Interests and Habits of Adults*. New York: The Macmillan Co., 1929. 305 p.
- Gunn, Mary Angella: *A Technique for Improving Basic Skills in English in the High School*. (University of Iowa Studies in Education, vol. VIII, no 7.) Iowa City: The University of Iowa, 1934. 40 p.

- Hudelson, Earl: "English Composition: Its Aims, Methods, and Measurement," *Twenty-Second Yearbook of the National Society for the Study of Education*, Part I. Bloomington, Ill.: Public School Publishing Co., 1923.
- La Brant, Lou L.: *A Study of Certain Language Developments of Children in Grades Four to Twelve, Inclusive*. Genetic Psychology Monographs, vol. XIV, no. 5. Worcester, Mass.: Clark University Press, 1933. 105 p.
- Ladd, Margaret Rhoads: *The Relation of Social, Economic, and Personal Characteristics to Reading Ability* (Contributions to Education, no. 582). New York: Teachers College, Columbia University, 1933. 100 p.
- Mirrieless, Lucia B.: *Teaching Composition in the High School*. New York: Harcourt, Brace & Co., 1931. 374 p.
- Monroe, Marion: *Children Who Cannot Read*. The Analysis of Reading Disabilities and the Use of Diagnostic Tests in the Instruction of Retarded Readers. (Behavior Research Fund Monographs). Chicago: University of Chicago Press, 1932. 206 p.
- Rivlin, H. N.: *Functional Grammar*. (Contributions to Education, no. 435). New York: Teachers College, Columbia University, 1930. 93 p.
- Shepherd, Edith E., Anderson, Harold A., Campbell, Gladys, Thomas, Russell, Traxler, Arthur E., with the co-operation of R. L. Lyman: *English Instruction in the University High School* (Publications of the Laboratory Schools of the University of Chicago, no. 4.) Chicago: Department of Education, University of Chicago, 1933. 178 p.
- Smith, Dora V.: *Class Size in High School English*. Minneapolis: University of Minnesota Press, 1931. 309 p.
- : *Instruction in English*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 20. 89 p.
- Stephens, Stephen DeWitt: *Individual Instruction in English Composition*. Harvard Studies in Education, vol. II. Cambridge: Harvard University Press, 1928. 150 p.
- Sullivan, Helen J.: "Achievement of North Dakota High-School Pupils in the Minimum Essentials of English, with Suggested Remedial Measures," *University of North Dakota Bulletin*, vol. XIII, no. 1. School of Education Bulletin, no. 5. Grand Forks: The University of North Dakota, 1929. 46 p.
- Thomas, Jesse Edward: *The Elimination of Technical Errors in Written Composition through Formal Drill*. (University of Iowa Studies in Education, vol. VIII, no. 2.) Iowa City: University of Iowa, 1932. 44 p.
- Willing, Matthew H.: *Valid Diagnosis in High School Composition*. (Contributions to Education, no. 230.) New York: Teachers College, Columbia University, 1926. 64 p.

FOREIGN LANGUAGES

INSTRUCTION in foreign languages has always held an important place in the curricula of American secondary schools. As its name implies, the Latin grammar school was chiefly concerned with instruction in the ancient languages, Latin and Greek. The academy, which succeeded the Latin grammar school and generously extended the scope of American secondary education, introduced and established instruction in modern foreign languages at the secondary level. The public high school, although it has been instrumental in widening the influence of secondary education and in adding a variety of new subjects to the program of studies, has effectively perpetuated the traditional emphasis upon linguistic instruction.

Changes in foreign language enrollments. Since 1890 the numerical increase of secondary-school students of foreign languages has generally kept pace with the unprecedented expansion of secondary-school populations, although specific languages have encountered varying fortunes. The study of Greek reached its heyday with the turn of the century and has since rapidly declined to a position of complete insignificance. Latin enrollments have generally suffered, particularly in urban schools and in the western sections of the country. The study of German met catastrophe through unfavorable prejudice aroused by the World War and its revival has been so slow as to give little promise of complete recovery. The influences which made the study of German unpopular stimulated enrollments in French. Spanish and other less popular languages seem to have been encouraged by racial and sectional influences, so that their growth has not been widespread, but it has been considerable.

However, there are important signs that this general trend of growth is changing. For example, the foreign languages have not won an important place in the curricula of junior high schools. The continuing reorganization of secondary schools may be expected to work large changes in foreign language enrollments. In view of the fact that

reorganized schools are as yet in the minority, the full effect of this trend is still to be felt.

Of vital importance also is the fact that, in terms of the relative amounts of work taken by high-school students in various subjects offered by high schools, statistics show that the foreign languages have suffered greater loss than any other field of instruction. The National Survey shows that in six representative high schools the graduates in 1900 had taken over thirty per cent of their work in foreign languages, while in 1930 the proportion had been reduced to slightly less than eighteen per cent.² This reduction was approximately twice as great as that in any other field of instruction. Undoubtedly this decline was caused somewhat by the diminution of the college admission requirements of foreign language credits. Moreover, the trend of these admission requirements is indicative of changing attitudes concerning the importance of foreign language instruction. It should be noted, however, that the mean percentage of work taken in foreign languages in 1930 was greater than that of any academic subject other than English. The magnitude of secondary-school enrollments in foreign language studies and the changes which are characteristic of them are ample warrant for critical scrutiny of the place of foreign language instruction in the secondary school.

Reasons for the teaching of foreign languages. It is by no means a peculiarity of the foreign languages that their reasons for existence in the secondary-school program are somewhat vague. It would be impossible to canvass even all of the claims made for them, and a complete catalog of such claims would probably not entirely explain their status. In plain truth, their presence in the program of studies of the contemporary school is accountable to two important factors, tradition and academic inertia. Although this is not necessarily either a point of merit or of deficiency, it must not be overlooked either by those who wish merely to understand an existing condition or by those who seek to promote changes in it.

Desire to emulate Europeans. Another contributory factor, which is not ordinarily mentioned in discussions concerning the place of foreign languages in the secondary-school program and which may therefore be invalid, is the tendency of Americans to suffer somewhat

² A. K. Loomis and others. *The Program of Studies*. U. S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 19, pp. 245-48.

from what may be called a cultural inferiority complex. Although there are many evidences of the gradual disappearance of this state of mind, it is true that we have long been accustomed, particularly in the arts and in personal refinements which are commonly esteemed as marks of social distinction, to look upon European culture as superior to our own. With the worth of this attitude we need not here be concerned. Its significance in this connection is in its influence in stimulating interest in the acquisition of at least a speaking acquaintance with the languages of admired Europeans. This possibility is supported somewhat by the fact that the majority of persons who study foreign languages actually do not attempt to acquire any satisfactory mastery of them. To the extent that this attitude has influenced the emphasis upon foreign language instruction in the secondary school, the increase of cultural independence and maturity in America may be expected to have the effect of diminishing the numbers of pupils who enroll for foreign language training.

Influence of immigrant Americans. Somewhat similarly the popularity of foreign language training in secondary schools reflects to an extent the presence in this country of persons who have only recently become Americans. Inasmuch as we are a nation of immigrants it is inevitable that certain foreign tongues should be cherished. There seems to be good reason to believe that this condition will gradually disappear. Its gradual disappearance will inevitably be reflected in decreased interest in foreign language instruction.

These three factors, one tending continually to perpetuate foreign language instruction and the others tending perhaps to cause a shift in the opposite direction, will undoubtedly shape the future destinies of this field. Possibly they will be much more potent than the claims of proponents of foreign language instruction or the counter claims of their academic competitors, for candor requires the admission that many of these claims have waited long for substantiating evidence and that many of our educational theories seem to be apologetic moonshine.

However, certain claims made for foreign language instruction come from such competent authority that they merit very serious consideration. Since educationists usually consider certain languages separately, making the separation apparently in terms of the dead and the living, it may be appropriate to consider first, and somewhat briefly, instruction in Latin.

INSTRUCTION IN LATIN

Historically, Latin instruction in American secondary schools represents the colonial importation of customary European practice and the effective stimulation of college admission requirements. For example, Harvard College in its early years demanded of candidates for admission the ability to speak Latin. These factors, and the consequent academic prestige resulting from them, have been potent forces in maintaining Latin as a secondary-school subject. During the long period of Latin's dominance a variety of claims comprised the rationale of apologists for it. These claims were well summarized by Alexander Inglis. He recognized that the study of foreign languages, particularly the study of Latin, by large numbers of secondary-school pupils can be justified only in terms of the production of indirect and general values. "General discipline" and increased extent and precision in vocabulary as an instrument of thought were believed to represent potential values which might justify the teaching of Latin, although Inglis was careful to show that the extent of the actual production of the values had not been demonstrated. He quoted from the report of the Committee on Ancient Languages of the Commission on the Reorganization of Secondary Education as presenting a tentative position which might be assumed until there might be "more definite knowledge of the method and extent of the transfer of improved efficiency."²

Hence the Committee suggests that teachers of Latin and those responsible for the administration of the schools be on their guard against (1) expecting too much transfer, (2) expecting too little transfer, (3) expecting transfer to be automatic. Pending the establishment of more conclusive theories of the "transfer of improved efficiency," the Committee recommends a careful analysis of the mental traits employed in the study of Latin, to determine what traits it is desirable to transfer from that field to other fields, what traits are actually transferred, and what other traits may be so transferred.

In spite of this rather wholesale warning and injunction the committee did not hesitate to predict with confidence the outcomes of such an investigation.

The Committee expresses its belief that among the mental traits involved in the study of Latin wherein transfer is most to be expected will

² Alexander Inglis: *Principles of Secondary Education* Boston. Houghton Mifflin Co., 1918, p. 462

be found the following: habits of mental work, tendency to neglect distracting and irrelevant elements, ideals of thoroughness, ideals of accuracy and precision, and attitudes toward study and intellectual achievement.

These statements are significant not merely because they are indicative of the customary attitude toward Latin, but because they gave authoritative sanction to the acceptance of a foundation which was soon to be pretty well demolished in the opinions of educationists.

Foundations of Latin instruction are undermined. Advocates of Latin apparently shared the beliefs of the members of this official committee, for there was little effective effort on their part to demonstrate acceptably the possibilities and actualities of transfer in the several elements which the committee had stressed. However, there was to be no peace for the friends of Latin in the schools. Many psychologists attempted to discover experimentally the possibilities of transfer in general and the conditions in which it is most likely to be achieved. Although their findings did not entirely disprove the contentions of the believers in "transfer," they indicated that the amount of transfer is small and that its existence is largely dependent upon methods of instruction. Thorndike's investigation of the disciplinary values of various high-school subjects,³ although the investigator was conscientious in calling attention to its limitations, had widespread influence among educationists who were increasingly ready to believe that Latin, and no other subject for that matter, could rightfully lay claim to special merit in effecting "transfer." And this investigation was but one of many which, although they did not entirely invalidate the theory of transfer, served effectively to undermine confidence in it and incidentally to stimulate the attack on the teaching of Latin.

Exhibits of the weaknesses of Latin instruction. Furthermore, certain investigations concerned directly with Latin augmented the discontent concerning it. Maxie Woodring's analysis of the quality of English in the translations of students of Latin⁴ provided considerable warrant for the inference that it would be fortunate if there were no transfer of the kind of linguistic performance found in Latin classes to

³ E. L. Thorndike: "Mental Discipline in High School Studies," *Journal of Educational Psychology*, 15:1-22, 83-98 (January, February, 1924).

⁴ Maxie N. Woodring: *A Study of the Quality of English in Latin Translations*. Teachers College Contributions to Education, no. 187. New York. Teachers College, Columbia University, 1925. 84 p.

other subjects. A similar inference was suggested by the findings of Judd and Buswell.⁵ They conducted a careful laboratory investigation of the reading performance of high-school Latin students. These students did not read Latin. It was reported that "Pupils in the third year of Latin do not read the words which are offered to them. The obvious fact . . . is that they do not even approach the reading attitude."⁶ The findings of this investigation also imply that the transfer of abilities, or perhaps we might better say disabilities, characteristic of the study of Latin would be detrimental to the work in other subjects.

As if these discouragements were not enough, instruction in Latin encountered further vicissitudes as the colleges, which had been its staunch supporters, at least in the secondary schools, continued to withdraw the preservative effect of admission requirements. It began to be obvious even to teachers of Latin that nothing short of a miracle could postpone the admitted demise of a subject which had long been popularly designated as dead.

The Classical Investigation. Somewhat tardily but with characteristic steadfastness the friends of Latin instruction set about valiantly to achieve at least a reasonably good substitute for a miracle. The result was the Classical Investigation, which was sponsored by the American Classical League. During a three-year period the committee in charge of the investigation canvassed the national status of Latin instruction, considered the findings and implications of numerous prior experimental investigations, and formulated recommendations concerning the content of secondary-school courses and methods of instruction.

It was recognized that, although the number of pupils studying Latin exceeded the numbers studying other foreign languages, very few pupils continued beyond the first or second year. The report of the investigation⁷ states that 69 per cent of the pupils who study Latin do not continue for more than one or two years, only 14 per cent

⁵ Charles H. Judd and G. T. Buswell: *Silent Reading, A Study of the Various Types*. Supplementary Educational Monographs, no. 23. Chicago: University of Chicago Press, 1922. 160 p.

⁶ *Ibid.*, p. 4.

⁷ The American Classical League: *The Classical Investigation*, Part I. General Report, A Summary of Results with Recommendations for the Organization of the Course in Secondary Latin and for Improvements in Methods of Teaching. Princeton: Princeton University Press, 1924.

make it a four-year course, and less than 5 per cent continue the study of Latin in college. Wheeler's study of foreign language enrollments in 1925 produced even more striking figures. His report⁸ showed that approximately 86 per cent of all secondary-school students of Latin were in the first two years, and that less than 5 per cent were in the fourth year. This situation stimulated the recommendation that Latin instruction in each year should be so modified as to be inherently valuable to the student, regardless of his prospects for further study. Apparently there was no consideration of the possibility that the important values of Latin instruction can be attained only through something more substantial than the necessarily elementary and meager work which can be done in one year. However, this failure to realize the wisdom of excluding unpromising pupils from the study of Latin is not exceptional. In fact this seems to be a method of improving questionable academic situations which is seldom considered by authorities in any field of secondary-school instruction.

The attempt to produce indirect values directly. The investigating committee faced frankly the growing disrepute of disciplinary or transfer values as the aim and justification of instruction in Latin. Latin had formerly been commended as an economical medium for the general production of such outcomes as increased understanding of Latin elements in English; the ability to read, speak, and write English correctly, the ability to spell English words, understanding of English grammar; the ability to learn other foreign languages; the development of certain desirable habits and ideals, such as sustained attention, orderly procedure, overcoming obstacles, perseverance, and the like. It had been valued for its supposed contribution to correct habits of thinking. In addition, it had been assumed to play an important part in the realization of certain cultural objectives — the gaining of historical perspective on the life, history, institutions, mythology, and religion of the Romans; appreciation of the influence of Roman civilization upon western civilization; broader understanding of social and political problems of today; the appreciation of literature; knowledge of language structure. Assuming that these values were no longer to be achieved through the high pedagogical economy of presumed trans-

⁸ C. A. Wheeler and others: *Enrollment in the Foreign Languages in Secondary Schools of the United States*. Publications of the American and Canadian Committees on Modern Languages, vol. IV. New York: The Macmillan Co., 1928. 453 p.

fer, the committee recommended that these values should now be consciously produced through specific teaching. In addition to these numerous and generously extensive responsibilities Latin teachers were further enjoined to develop in their pupils the power to read and understand Latin, and to produce understanding of grammar and syntax.

This appears to be a very ambitious program. In view of the evidence concerning the matter of reading Latin, we may well wonder how this last objective is to be achieved in addition to so many other objectives, especially when it is considered that teachers of Latin apparently produced very mediocre attainments in reading Latin even at a time when they were not expected, in addition, to deal directly with numerous indirect outcomes. Furthermore, there may justly be some doubt as to the feasibility of using Latin as a means of improving abilities in the correct use of English, particularly in view of the fact that the committee deplored the kind of English expression frequently tolerated in Latin classes. It should be remembered in this connection that authorities in the field of English tend increasingly to recommend that English usage be made a joint responsibility of teachers of all content subjects in order to be made effective. Apparently Latin teachers are expected to accomplish as a side-line what English teachers have been unable to achieve as a major objective. Similar considerations apply to the objective of developing appreciation of literature.

The question also arises whether, even if it be assumed that perspective concerning Roman history is essential, and further, that this perspective can be produced as well in Latin as through the medium of the English language, Latin teachers can or should undertake this task. Most schools which offer Latin also offer history courses. If Latin teachers are so talented or if their subject is so potent that this historical perspective, the production of which taxes the abilities of history teachers, can be satisfactorily accomplished incidentally by Latin teachers, we might logically dispense with instruction in history.

Actual practice in Latin instruction. A host of doubts assail us as we contemplate the scope of these recommended undertakings, unless we realize that these recommendations are almost entirely lacking in quantitative specifications or standards. Obviously all of these objectives and doubtless as many more could be set up as the goals of

Latin instruction if no commitments were made as to the extent of their achievement. Actually, it is left to the teacher of Latin, with the very considerable help of the author of the textbook which is used, to determine to what extent these several objectives will be emphasized. It seems fair to say that the work of the Classical Investigation seems better suited to provide as much excuse as possible for teaching Latin to as many people as possible, regardless of their definite needs for it and of their persistence in studying it, than to define a distinctive justification for Latin and a distinctive program reasonably well suited to the effective attainment of commonly accepted objectives. Under these circumstances it is to be expected that there would be considerable diversity in practice and that many teachers of Latin would maintain conventional and traditional procedures in Latin instruction.

In the survey of Latin instruction, one of the phases of the recent National Survey of Secondary Education, the Classical Investigation was shown to have been very influential in the development of courses of study in various states and in larger cities in which it is customary to have special courses of study.⁹ In these courses there is ordinarily reduction in the amount of reading to be done in the traditional classics. The time thus made available is supposed to be devoted in part to the reading of "made" or adapted Latin. The courses of study ordinarily recommend that the emphasis upon translation be reduced and that there be stress upon reading in the Latin word order. Vocabulary lists specifying the particular words to be learned in each year are provided and specific elements of grammar and syntax are minutely designated. Suggestions with reference to the traditionally indirect outcomes which are now to be specifically produced as direct outcomes are ordinarily mentioned at length, with relatively less concreteness than is characteristic of the prescriptions concerning readings, vocabulary, and syntax.

The report of the National Survey makes it apparent that these recommendations are very frequently disregarded in practice by teachers of Latin. Teachers sometimes explain their lapses by saying that it is difficult to follow the recommendations or that there is insufficient time. Surely the nature and extent of the diverse objectives of Latin

⁹ Helen M. Eddy: *Instruction in Foreign Languages*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 24, chap. II.

instruction is considerable justification for such attitudes on the part of teachers.

Weakness of first-year Latin course. In the actual teaching of Latin there has been little attempt thus far to offer distinctive types of courses somewhat adapted to the needs of different groups of students. The elementary courses in particular represent an apparent attempt to be all things to all men. All pupils, those who will remain in the course not more than one year and those discouragingly few pupils who will continue the study in college, are alike exposed to reading, oral and written training, principles of grammar, and miscellaneous tidbits concerning Roman civilization and its modern vestiges. There are some numerically insignificant exceptions. Some schools classify separately pupils who do not expect to go to college or to continue more than two years in the Latin course, so that they can be given a Latin course which is intended to achieve some worthy objective other than the knowledge of Latin. But the small rural schools, which tend increasingly to be the predominant outposts of adherence to Latin traditions, ordinarily do not find it possible to make such distinctions, even if they are disposed to make them.

The future of Latin. What the outlook for Latin instruction is or should be only an unusually tactless prophet would attempt to predict. Since it is characteristic of school subjects to persist almost indefinitely, we may safely assume that Latin instruction will continue in some secondary schools for many years. There are, however, certain symptoms which suggest its decline. Some of them are the rapid disappearance of prescription of Latin for college admission, the general failure of pupils to continue to study it in advanced courses, and the decline of registration in Latin courses in urban schools. In addition to these interrelated factors there is the possibility that the modifications recommended by the Classical Investigation, although they have undoubtedly served temporarily to revive interest in Latin, may eventually accelerate the decline of Latin instruction. It should be recognized in this connection that in the attempt to present immediately to pupils in elementary Latin courses some of the ultimate outcomes which are assumed to be the result of thorough and continued study of Latin it is inevitable that there will be some dilution of the rigorous fundamental training which is appropriate to the student who will continue to study the subject in advanced courses. Specifically, a

Latin course which is generously adulterated with specific instruction in English grammar, written composition, English derivatives from Latin, and "realia" — which seem to be a general classification of everything under the sun which can be shown to have any connection with Latin — will probably not be the best possible preparation for those who might otherwise become competent advanced students.

Undoubtedly, there are many educators who have serious doubts about the desirability of making Latin classes the means of instruction and training in all of the subjects which Latin teachers have appropriated in order to make their own subject seem worthy. If, then, in addition to the emasculation of Latin as thorough fundamental training for advanced students, the Classical Investigation has led the teachers of Latin to undertake miscellaneous enterprises which are not approved by other educationists, the outlook for the future is bleak.

There would seem to be only one means by which this prospect might be much changed. The Committee on the Reorganization of Latin strongly recommended research which would demonstrate the extent to which Latin instruction actually produces some of the values claimed for it. In default of such effort it seems likely that the friends of Latin instruction can only expect to meet increasing neglect and hostility at the hands of those who are supposedly its beneficiaries.

MODERN FOREIGN LANGUAGES

Instruction in the modern foreign languages presents a much more hopeful picture, although it also is beset with difficulties, some of which are not dissimilar to the difficulties of Latin. One of the most important reasons for optimism concerning the teaching of the modern languages in secondary schools is the fact that leaders in the field have successfully undertaken a thorough study of its status and accomplishments. The investigations sponsored jointly by the American and Canadian committees on modern languages are not only promising sources of improvement in the teaching of modern languages; they are models of research which might well be emulated in other fields. So thoroughly have they encompassed both the facts and the problems of modern language instruction that they are properly and

necessarily the most important source of information and critical evaluation in this field.¹⁰

"The Modern Foreign Language Study." It is significant that one of the major phases of the Modern Foreign Language Study was the comprehensive investigation of nationwide enrollments.¹¹ There is scarcely any phase of modern language instruction which can be adequately understood or evaluated unless various characteristics of pupil personnel are considered. Accurate facts concerning current enrollments in the modern foreign languages are not accessible, but the investigation of enrollments in 1925 showed that the pupils engaged in foreign language study, comprising about one-fifth of enrollments in all subjects, were predominantly beginners. Of all pupils beginning the study of modern languages in the secondary school over 80 per cent continued not longer than two years and less than 60 per cent continued more than one year.¹² These proportions may have changed somewhat in certain particulars, but the general situation persists. Hence, it must be remembered that whether we consider the specific claims made for foreign language instruction, the actual achievements or deficiencies resulting from it, or the modifications to be made in it, we are dealing with subjects in which, for the present at least, the typical pupil is a beginner, with very little prospect of ever being more than a beginner.

Objectives of modern language instruction. The committee in charge of the Modern Foreign Language Study assembled from representative sources a list of tentative objectives which have commonly been designated as appropriate and reasonable outcomes of modern language instruction. This tentative list of objectives is as follows:

Immediate Objectives

Progressive development

- A. Of the power to read the foreign language.
- B. Of the power to understand the foreign language when spoken.
- C. Of the power to speak the language.
- D. Of the power to write the language.

¹⁰ All of the publications of this joint committee are valuable for those particularly interested in the modern languages. For the general student of secondary education, Algernon Coleman: *The Teaching of Modern Foreign Languages in the United States* (New York: The Macmillan Co., 1929 299 p.), vol. XII, is almost indispensable. Vols. I, II, IV, V, VIII, XIII, XIV, and XVII are valuable for reference.

¹¹ C. A. Wheeler and others *Op. cit.*

¹² It must be remembered that in 1925 approximately 65 per cent of the total enrollment in regular high schools was in grades nine and ten, the respective percentages being approximately 40 and 25.

Ultimate Objectives

- A. Ability to read the foreign language with ease and enjoyment.
- B. Ability to communicate orally with natives of the country whose language has been studied.
- C. Ability to communicate in writing with natives of the country whose language has been studied
- D. Increased ability to pronounce and understand foreign words and phrases occurring in English.
- E. Increased ability in the accurate and intelligent use of English.
- F. Increased power to learn other languages.
- G. A more effective realization of the importance of habits of correct articulation and clear enunciation.
- H. Increased knowledge of the history and institutions of the foreign country and a better understanding of its contribution to modern civilization.
- I. Increased ability to understand ideals, standards, and traditions of foreign peoples and Americans of foreign birth.
- J. Development of literary and artistic appreciation.
- K. Development of a more adequate realization of the relation of the individual to society.
- L. A clearer understanding of the history and nature of language.
- M. Increased ability to discern relationships and make comparisons between subjects allied in form and content.
- N. Development of habits of sustained effort.
- O. The ability to make prompt and effective use of foreign discoveries and inventions.
- P. Development of social adaptability, through increased personal contacts with natives of other countries.¹³

Attainment of objectives. Without endorsing these objectives in their entirety, the committee sought to obtain evidence of the degree to which these several objectives are ordinarily achieved through instruction in secondary schools. Obviously many matters designated as ultimate objectives are not readily measurable. In the absence of other sources of evidence the committee asked large numbers of representative teachers of modern languages to express their opinions about the attainment of all of these objectives on the part of pupils in their classes. It was recognized that these judgments might be somewhat optimistic. In general, the teachers were much more confident of the attainment of the relatively remote and indirect outcomes than of

¹³ Algernon Coleman: *The Teaching of Modern Foreign Languages in the United States*. New York: The Macmillan Co, 1929, p. 16. By permission of the publishers.

those which are the immediate products of classroom instruction. It is significant that only negligibly small numbers of the teachers believe that as many as 50 per cent of pupils attain any of the first three objectives within the first year of study. Of the 439 teachers who expressed judgments concerning the attainments of second-year students, only 36 per cent believed that 50 per cent or more of these pupils had achieved "ability to read the foreign language with ease and enjoyment"; only 18 per cent were willing to assert that one-half or more of their pupils were competent to communicate orally with natives of a foreign country; and approximately 40 per cent thought that a similar proportion of their pupils use the language for communication in writing.¹⁴ Even among teachers of third- and fourth-year classes there is by no means complete unanimity concerning the attainment of these three basic objectives. In the case of reading ability 78 per cent of teachers of fourth-year pupils are confident of achievement among 50 per cent or more of their pupils. In ability to communicate orally and in writing the corresponding percentages are 55 and approximately 69, respectively. Since there is good reason to believe that these judgments do not underestimate the attainments of pupils, this is obviously a serious situation.

Other evidence confirms the judgment that relatively few students of foreign languages achieve satisfactory mastery of fundamental objectives. O'Shea's study of the use of foreign languages by persons who have formerly studied them in school indicates that such use is meager. For example, he found that 30 per cent of those who had studied French two years had subsequently read small amounts of new material; and the percentages for the three-year students and the four-year students were 40 and 63, respectively.¹⁵ O'Shea's findings are frequently cited, particularly by opponents of foreign language instruction, as indicative of little need or occasion for the use of abilities in these languages. Such an inference is no doubt justified in part, but it is probable that these data also indicate the extent to which persons who have studied modern languages have the ability to use them.

¹⁴ These percentages are derived from figures presented by Coleman, *op cit*, p. 46. He presents very detailed facts concerning teachers' judgments as to attainment of each of the objectives in all high-school grades. See pp. 43-50.

¹⁵ M. V. O'Shea, *The Reading of Modern Foreign Languages*. U.S. Bureau of Education Bulletin, 1927, no. 16. 78 p.

Judd and Buswell, reporting the results of a dependable investigation of the reading activities of third-year pupils in French,¹⁶ show that, although some of the best students display symptoms of mastery of reading in the foreign language, reading achievement among pupils at this level falls far short of the proficiency which is characteristic of mature readers.

In a special study of the reading of foreign languages Buswell found that typical pupils in second-year groups did not even approach the standards of reading proficiency which are common among expert readers¹⁷ He found also that with reference to the attainment of reading ability it matters little whether a person begins the study of a foreign language in secondary school or in college, although those who have begun in the elementary school seem to have made much less progress. Another very significant conclusion is that pupils who have been taught by a "direct method" (emphasizing reading specifically) achieve much greater reading maturity than is characteristic of those taught indirectly by a translation method.

Regardless of the potential values of abilities to use the foreign languages, apparently considerable proportions of pupils now engaged in the study of them are not achieving satisfactory mastery. To those who are familiar with the achievements of secondary-school pupils in other subjects of study these deficiencies may not appear to be either exceptional or important. But it should be recognized that subjects in which the direct production of performance abilities is a major objective are distinguished in this connection from those in which knowledge is the chief outcome. If the acquisition of an ability is to result in substantial values the ability in question must be developed to the point of competent facility. In this sense the use of a foreign language tends to be an all-or-none matter. There are, to be sure, varying levels of proficiency among those who are expert, but unless the foreign language student develops his abilities to the point of being able to use them easily and conveniently he has little advantage in this regard over the person who has not even attempted to learn a foreign language.

¹⁶ Charles H. Judd and G. T. Buswell: *Silent Reading, A Study of the Various Types*. Supplementary Educational Monographs, no. 23. Chicago University of Chicago Press, 1922 160 p

¹⁷ G. T. Buswell: *A Laboratory Study of the Reading of Modern Foreign Languages*. Vol II of the Publications of the American and Canadian Committees on Modern Languages. New York: The Macmillan Co, 1927. 100 p.

Variations in performance of students. Although these facts are significant they do not represent some of the most important aspects of the foreign language situation in the secondary school. We should consider in some detail the extent of variations among individual foreign language pupils with reference to different phases of the subject. In these matters also the most adequate evidence is provided by the Modern Foreign Language Study. Henmon's investigation¹⁸ of individual achievement in various schools throughout the United States demonstrates the tremendous variation in the achievement of pupils in different schools and of different pupils in the same classes. The study makes it apparent that knowledge of a pupil's grade level is a very unreliable basis upon which to estimate his abilities to read, to write, or to speak the language. The variation among pupils of any one grade level is in most cases greater than the range between the median achievement of pupils in the first year of foreign language study and those in the fourth year. It must be remembered in this connection that schools are notoriously negligent of their superior pupils. The practical necessities of group instruction seem to prevent most teachers from attending particularly to the needs and potentialities of the gifted pupil. Hence, it may be inferred that the potential range of differences between the achievement of the relatively incompetent pupil and that of the very able is greater than the apparent range which now exists. Obviously, the potentialities of superior pupils are being neglected in the attempt to adapt foreign language instruction to the slow and faltering pace of large numbers of persons whose study of foreign language is brief and whose achievements are meager.

Coleman¹⁹ repeatedly refers to the common assertion of modern language teachers that the presence in their classes of pupils who lack "linguistic ability" is one of the most important hindrances to the attainment of good results. He recommends strongly that enrollment in modern language courses be limited to those pupils whose abilities correspond to those of the upper half of the conventional class. Certainly such restriction would be beneficial both to the types of pupils who now waste one or two years' time in nominal and futile

¹⁸ V. A. C. Henmon: *Achievement Tests in the Modern Foreign Languages*. Vol. V of the Publications of the American and Canadian Committees on Modern Languages. New York: The Macmillan Co., 1929. 363 p.

¹⁹ Coleman *Op cit*, *passim*.

study and to the superior pupils who would thus have the opportunity of receiving training better suited to the effective production of substantial results.

Distribution of emphases in foreign language instruction. Another inference which may be drawn from the findings of the Modern Foreign Language Study is that the emphases upon various aspects of subject matter are not properly apportioned. The investigation clearly shows that teachers devote much time and attention to the attempt to produce understanding of grammar. The examinations ordinarily used as measures of linguistic achievement display a similar emphasis. This seems unfortunate, not only because it consumes time and energy which might otherwise be devoted directly to the attainment of the reading objective, or other important aims, but also because there is no adequate evidence that knowledge of grammar is valuable. It is possible also that teachers of modern languages might produce in many of their pupils useful mastery of certain particular abilities if they were willing to give up the hopeless attempt to develop concurrently several abilities. "Most of the present courses of study are based on the fourfold aim . . . (to read, to write, to speak the language, and to understand it when spoken) and offer little variation in the suggestions for classroom activities in accordance with a 'modified direct' or eclectic method."²⁰ Actual instruction in modern languages does not produce equivalent emphasis upon each of these four objectives. "Whatever a printed list of objectives may propose, it may be confidently asserted that the first two years in nine courses out of ten are devoted chiefly to the kinds of practice that prepare primarily for correct writing and speaking in the foreign language, in the belief that only so may reading ability be developed and rendered durable."²¹ Coleman's appraisal of this situation is significant.

If it is true that this sort of preparation is indispensable, if the student must be able to speak and to write as a necessary preliminary for reading, the situation that confronts the teachers of modern language is indeed serious. As the enrollment inquiry shows, the overwhelming majority of those who begin a foreign language pursue it for two years *at most*, and about one-third of the total modern language population of the country is found in schools that provide, at most, two years' instruction in modern languages. It is quite clear, therefore, that, as

²⁰ Helen M. Eddy: *Op cit.*, p. 10.

²¹ Algernon Coleman: *Op cit.*, p. 144. By permission of The Macmillan Company, publishers.

things are, most of our students have to acquire the ability to speak and to write and to read in two years. If they fail to do this, they must be satisfied with whatever indirect benefits may accrue from their modern language course. These, as has been pointed out, are not easy to measure and must for the present, therefore, rest largely on hypothesis.²²

Modern language instruction presents an intolerable situation. Whatever its theoretical potentialities may be claimed to be, obviously under anything like present conditions teachers of modern languages could not reasonably be expected to produce satisfactory competence in the four abilities designated as their immediate objectives. If prevailing conditions are allowed to persist there is grave danger that common recognition of their futility may produce such widespread antagonism to modern language instruction as to force it out of the secondary school.

Possible reforms. Fortunately, the Modern Foreign Language Study presents a number of possible reforms which might be immediately employed.²³ A sufficient number of alternatives is provided to make possible various revisions in different schools. Coleman makes these very specific suggestions:

1. Reduce considerably the amount of time devoted to oral work and concentrate on developing a functional knowledge of grammar and the ability to read.
2. Secure the necessary reading experience by requiring considerably more reading outside the classroom than most classes do at present.
3. Adopt an extensive reading course for the majority of students, and limit instruction of the present type to those who will continue for more than two years in school or college.
4. Exclude from modern language classes all but superior students, as determined by high standing in other subjects or by other means.
5. Discontinue the two-year secondary course except in the case of high-school juniors or other students who have a personal or vocational interest in modern languages and will almost certainly continue in college. For all others demand a three-year course as a minimum.
6. Organize the course of the first two years as a stage during which, for most students, the criterion of success shall be the attainment of ability to read the foreign language in a manner approximating reading ability in the mother tongue. . . .

²² Algernon Coleman *Op. cit.*, p. 144. By permission of The Macmillan Company, publishers.

²³ These suggested changes are presented fully and repeatedly throughout the report by Algernon Coleman. Some of the more important recommendations are briefly summarized on pages 166 and 167 of his report.

Each of these suggestions has merit, and some schools would undoubtedly do well to make at least some trial of several of them. Even in those schools which are unable to make drastic revision of the program of modern language instruction it would be feasible at least to "reduce considerably the amount of time devoted to oral work and concentrate on developing a functional knowledge of grammar and the ability to read,"²⁴ or to "secure the necessary amount of reading experience by requiring considerably more reading outside the classroom than most classes do at present."²⁵ These expedients have the merit of requiring little administrative reorganization of the modern language curriculum, although the resistance of teachers to such changes in their conventional procedures may be an important obstacle. The Coleman report also suggests the possibility of excluding from modern language classes all pupils except those who are definitely superior. Another recommendation is the establishment of modern language instruction as a three-year unit of study. The practical effects of both of these measures would be similar. It should be remembered that many small schools do not offer now as much as three years of modern language instruction. Particularly in the smaller high schools any substantial effort to limit modern language study to superior pupils or to establish a three-year course as the minimum credit unit would be likely to result practically in the abandonment of modern language instruction.

Perhaps the most feasible suggestion for the next step in the improvement of modern language instruction in the rank and file of American secondary schools is the adoption of an arrangement wherein the first two years of the modern language curriculum will be devoted to "the attainment of ability to read the foreign language in a manner approximating reading ability in the mother tongue, with speaking and writing in the background except as practice in speaking and writing and hearing is an aid in achieving power to read. . . . Students who have read a very generous minimum number of pages and who have given or give proof of really being able to read are to be credited as passing."²⁶ In making this recommendation Coleman recognizes the fact that during the first two years' work the pupil will necessarily have acquired incidentally some functional knowledge of grammar and some ability to speak and to write, but he recommends that these abilities be recognized in this case as appropriate to the advanced

²⁴ Coleman, p. 166.

²⁵ *Ibid.*

²⁶ *Ibid.*, p. 167.

stages of foreign language instruction. This proposal at least offers some hope of giving to the two-year student at least one ability which he is competent to use, in place of a more numerous assortment of pseudo-abilities which represent no competence whatever. At the same time the more extensive repertoire which is ordinarily promised to all students is made available to those who elect or are selected to undertake the more rigorous and extended training offered in advanced courses. This proposal merits extensive trial in representative schools. There is little probability that the results would be inferior to those produced in conventional modern language instruction, and it is reasonable to expect that there would be much improvement.

Although adoption of these provisions promises to raise markedly the standards of group attainment in high-school classes, even though no additional improvements are attempted, further advancement may be brought about by means of better measurement and control of the abilities and attainments of individual pupils. The Modern Foreign Language Study presents ample evidence of the great variations in general linguistic attainment among individuals as well as considerable variation in different aspects of linguistic ability on the part of particular pupils. The abilities resulting from foreign language instruction are sufficiently definite and real to make them susceptible to accurate measurement. Improved instruments and techniques for such measurement will greatly facilitate effective instruction and administration of instruction.²⁷ Although the evidence produced by use of improved measurement devices will be helpful in the selection of foreign language students, one of the most promising values of accurate measuring devices has to do with individualized training. Even if considerable numbers of relatively incompetent pupils are to be excluded from any foreign language instruction there will still be wide variations in the potential rates of progress of individual students. As teachers become more willing to capitalize fully the varying talents of individual pupils and as more accurate measuring devices become available, it is to be hoped that individual pupils will be permitted and expected to progress as rapidly as they can. Under such a system standards of actual performance ability or accomplishment should be

²⁷ The very significant work in measurement sponsored by the Modern Foreign Language Study is described in V. A. C. Henmon: *Achievement Tests in the Modern Foreign Languages* New York: The Macmillan Co., 1929. 363 p.

substituted for the relatively meaningless academic points and credits which are now so generally used and so much criticized.

FOREIGN LANGUAGES AND THE PURPOSES OF THE SCHOOL

The problems thus far considered are related chiefly to the immediate objectives of foreign language instruction — ability to read, to understand the spoken language, to speak, and to write — and to the extent to which these outcomes are or can be attained. These problems are obviously important, but they are subordinate and incidental. Even if foreign language instruction could be shown to produce or to be able to produce in secondary-school pupils the abilities here specified, the school cannot avoid the responsibility for determining to what extent these attainments are essential to its purposes.

Because foreign language instruction is primarily devoted to the attempt to produce a number of specialized abilities or skills, it contributes little towards the school's major purpose in the development of insights and appreciations. The relatively few facts which the pupil gets in his foreign language studies pertain chiefly to the particularities of one of a large number of languages which are almost entirely extraneous to American culture. These few understandings are not merely remote from the social culture in which he is a participant. They are even more foreign to the field of his normal everyday activities.

The pupil does, of course, acquire a few notions concerning the culture of the people whose language he studies, and partisans make much of the claim that international understanding and peace on earth are fostered when pupils learn about the culture of France, Germany, or ancient Rome. It should be remembered, however, that international understanding should not be restricted to a single foreign country and that young people can ordinarily learn much more about other nations through reading in the vernacular than through attempts to read a foreign language. For the great majority of pupils foreign language instruction is not directly effective in supplying broad insights and appreciations bearing either upon their personal activities or the world in which they live.

Even though it is unfruitful in yielding understanding and appreciation, foreign language training offers at least a limited contribution to

another of the school's major purposes. It offers opportunities whereby some persons may at least discover and develop their aptitudes for effective use of foreign languages. There are, of course, relatively few secondary-school pupils who will have substantial vocational need for a foreign language. But it is entirely conceivable that many pupils may find in it a very useful and satisfying avocational activity. The commonly observable avocational interests of persons who have had foreign language training may arouse some skepticism concerning avocational values of foreign languages. Nevertheless the possibility still remains.

Briefly then, foreign language training, being predominantly devoted to the development of skillful ability or proficiency, and necessarily remote from the main currents of American life, is doubly disqualified for the school's task of producing understanding and appreciation of the world. At its best, however, it offers to persons of exceptional talent the possibility of becoming proficient in a satisfying personal activity.

Problems demanding solution. Many of the issues related to foreign language instruction are so complex and intangible as to offer little promise of early decision, but there are certain problems which seem to demand immediate and substantial attempts to solve them. Specifically such questions as these suggest the need for prompt remedies:

1. *If we are to assume that instruction in Latin does not inherently produce through "transfer" the various indirect values traditionally claimed for it, how much longer should we permit its continuance as an integral element in the curricula offered to large numbers of secondary-school pupils?* It is obvious that Latin is declining in our newer and larger high schools, but it is so tenaciously persistent in older schools and in our small schools as to suggest that the problem will not be solved satisfactorily merely by a policy of neglectful waiting. Furthermore, current efforts to make Latin instruction all things to all men may actually diminish its effectiveness for those supposedly few pupils who might conceivably profit from the rigorous and continued study of Latin as such.
2. *How soon and by what methods can the secondary school exclude from modern foreign language instruction the relatively large numbers of pupils who now enroll for brief and unprofitable exposure to it?* The testimony of teachers, the statistics of enrollment, and the results of testing indicate that large numbers of nominal students do not now achieve more than a superficial beginning. It may be inferred that this condition, unfortunate in itself, seriously handicaps the school in providing ade-

quate training for superior pupils who might otherwise achieve some reasonable measure of competence.

3. *Is it desirable and possible to undertake generally in all secondary schools immediate attainment of the "reading objective," postponing the development of other skills for training in advanced courses?* Some authorities favor the attempt to attain all four immediate objectives concurrently, but there is evidence of the possibility of giving adequate training to produce reading ability solely. Unless foreign language instruction is to be given only to those who can and will persist in it during several years, it seems desirable to offer in the more elementary courses training which has some possibility of producing useful competence in reading.
4. *How soon and by what means will it be possible for the secondary school to develop definite standards of pupil performance in modern language instruction and suitable measures of their attainment?* Because of the great variations among schools and among different pupils in the same schools our present methods of estimating achievement are accurate measures of little more than time-serving. The development of reasonably objective standards and measures of performance would in all likelihood directly tend to improve the attainments of able pupils and to exclude those without talent. In addition such development would greatly facilitate other means of improving instruction.
5. *Will it be possible and desirable so to arrange and administer modern language instruction as to encourage individual pupils to advance to high levels of competence as rapidly as their abilities permit?* Even among highly selected groups considerable individual variation is inevitable. Since, in comparison with other fields of instruction in which the acquisition of knowledge is predominant, modern language training is so largely concerned with personal acquisition of abilities and skills, it is probable that this field offers unusual opportunities for the individualization of instruction. However, in actual school practice this matter cannot be adequately arranged unless or until other problems concerned with the selection of pupils and the development of more adequate standards and measures of achievement provide a basis for this work.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Obtain evidences showing in what ways and to what extent persons who have devoted various amounts of time to the study of foreign languages in the secondary school subsequently use them in speaking, writing, or reading.
2. Make inquiry of teachers of foreign languages in secondary schools to get their estimates of the extent to which their present pupils will subsequently read, write, and speak the foreign language.

3. Under what conditions should a secondary-school pupil be advised to begin the study of a foreign language?
4. Investigate the details of contemporary practice in teaching modern foreign languages in order to discover the extent to which the criticisms and recommendations made in the "Foreign Language Study" have actually been applied.
5. Latin is very commonly mentioned in research studies of the unfavorable reactions of pupils toward their subjects of study. On the other hand, it is often highly praised by eminent adults who studied it long ago. How is the disagreement to be explained?
6. Basing your estimate on the best available evidence, indicate the probable percentages of pupils now studying foreign languages in public secondary schools who may reasonably expect to make considerable use of these languages in their vocations.
7. Devise a feasible plan whereby teachers of foreign languages might administer individualized programs of extensive reading for their pupils.
8. It is sometimes asserted that children whose families have but recently come to America should be encouraged to study the language of the countries from which they have come in order to strengthen cultural ties with their ancestral homes. Evaluate this proposal.
9. In many small high schools it is not practicable to offer training in more than one foreign language. State the guiding principles which should be followed in the attempt to select wisely the language which should be offered in a particular high school.
10. In order to indicate the trend of thought among leaders in foreign language instruction, prepare an annotated bibliography or a summary review of recently published articles dealing with it.
11. Assuming that the recommendations in the "Coleman report" may profitably be applied in secondary schools, examine these recommendations carefully and show as specifically and as concretely as possible how their application in the modern language program of a given high school would call for changes in present practice in the school. Present a statement of these changes to some foreign language teachers and see if you can demonstrate to them the desirability of the changes.
12. Although we have evidence to indicate that *in general* the people who have been enrolled for two or three years of training in foreign languages classes do not make subsequently very considerable use of printed materials in the foreign language, we do not know much about such use of the foreign language in relation to the level of the student's accomplishment while in the foreign language class. Make plans whereby you can classify individuals according to their achievement in foreign language courses and the duration of their enrollment in them and find out what and how much use they make later of the language in reading, writing, and conversation. Take pains to obtain evidence which is so accurate

and valid that it could be used in the selection and guidance of pupils in school. It will be particularly valuable to find out whether there is any reliable relationship between a student's standing at the end of his first semester of study and his later use of the language. If there is a marked relationship, the facts so obtained could be used to guide pupils who need help in deciding whether they should continue in foreign language training.

13. In order to try out the feasibility of concentrating on the development of reading ability as a major objective of foreign language training, work out a plan which provides for proper selection of an appropriate group of pupils, the selection of suitable instructional material and equipment, the development of teaching methods (including the organization of activities of teacher and pupils), the determination of suitable standards of attainment, and methods of measuring actual attainment.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF FOREIGN LANGUAGE INSTRUCTION

One of the best ways to become acquainted with the variety of emphases in foreign language instruction is to examine some textbooks intended for teachers. The texts by Baker, Cole, Game, and Gray are representative and easy to read. Coleman's report on the teaching of Modern Foreign Languages is a rigorous analysis of research data, but it is written accurately and forthrightly, and deserves to be considered carefully by anyone who has any interest in or responsibility for the foreign languages in the secondary-school program.

Baker (Mrs.), Florence M.: *The Teaching of French*. Boston: Houghton Mifflin Co., 1931. 286 p.

Cole, Robert D.: *Modern Foreign Languages and Their Teaching*. New York: D. Appleton & Co., 1931. 598 p.

Coleman, Algernon: *The Teaching of Modern Foreign Languages in the United States*. New York: The Macmillan Co., 1929. 299 p.

Game, Josiah B.: *Teaching High School Latin*. Chicago: University of Chicago Press, 1925. 151 p.

Gray, Mason D.: *The Teaching of Latin*. New York: D. Appleton & Co., 1929. 235 p.

Fortunately there are available numerous and substantial summaries and bibliographies of publications dealing with foreign language instruction. Cursory perusal of them will be valuable to the reader who wishes to get a general idea of the scope and character of the published material in this field, and they are exceedingly useful to anyone who is setting out to make any sort of special study of particular aspects of theory or practice in the

teaching of the foreign languages. It will be noted that several of them are sponsored by the American and Canadian Committees on Modern Languages. These are only a few of a large number of publications so sponsored.

Buchanan, Milton A., and MacPhee, E. D.: *An Annotated Bibliography of Modern Language Methodology*. Publications of the American and Canadian Committees on Modern Languages, vol. VIII. Toronto: University of Toronto Press, 1928. 428 p.

Cheydleur, F. D., and Henmon, V. A. C.: "Foreign Language," *Review of Educational Research*, 4: 466-72, 525-30 (December, 1934).

Coleman, Algernon (Compiler): *An Analytical Bibliography of Modern Language Teaching, 1927-1932*. Chicago: University of Chicago Press, 1933. 296 p.

Fife, Robert Herndon (Compiler): *A Summary of Reports on the Modern Foreign Languages*. (Issued by the Modern Foreign Language Study and the Canadian Committee on Modern Languages) New York: The Macmillan Co., 1931. 261 p.

Grinstead, Wren Jones: "Latin," *Review of Educational Research*, 2: 56-65, 91 (February, 1932).

Tharp, James B.: "Modern Foreign Languages," *Review of Educational Research*, 2: 47-55, 90-91 (February, 1932).

Most of the following publications are reports of individual studies which are fairly well characterized by their titles. The study by O'Shea is perhaps the only one which will have considerable interest for many readers who are not advanced students.

The American Classical League: *The Classical Investigation*. Part I, General Report. Princeton: The Princeton University Press, 1924. 305 p.

Buswell, Guy T.: *A Laboratory Study of the Reading of Modern Foreign Languages*. New York: The Macmillan Co., 1927. 100 p.

Coleman, Algernon: *Experiments and Studies in Modern Language Teaching*. Chicago: University of Chicago Press — Compositated for the Commission on Modern Language Teaching, 1934. 367 p.

Division of Psychology, Institute of Educational Research, Teachers College, Columbia University: *Language Learning: Summary of a Report to the International Auxiliary Language Association in the United States, Incorporated*. New York: Teachers College, Columbia University, 1933. 59 p.

Henmon, V. A. C.: *Achievement Tests in the Modern Foreign Languages*. (Prepared for the Modern Foreign Language Study and the Canadian Committee on Modern Languages.) New York: The Macmillan Co., 1929. 363 p.

- Huse, H. R.: *Psychology of Foreign Language Study*. Chapel Hill: University of North Carolina Press, 1931. 231 p.
- O'Shea, M. V.: *The Reading of Modern Foreign Languages*. U. S. Bureau of Education Bulletin, 1927, no. 16 78 p.
- Seibert, Louise C.: *A Series of Experiments on the Learning of French Vocabulary*. Johns Hopkins University Studies in Education, no. 18. Baltimore: Johns Hopkins Press, 1932 106 p.
- Smith, Horatio (Chairman): *Report of the Commission Appointed by the College Entrance Examination Board to Revise the Definition of the Requirements in French, German, Italian, Spanish*. New York: College Entrance Examination Board, 1932. 10 p.
- Woodring, Maxie N.: *A Study of the Quality of English in Latin Translations*. (Contributions to Education, no. 187.) New York: Teachers College, Columbia University, 1925. 84 p.
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MATHEMATICS

INSTRUCTION in mathematics merits the serious attention of the student of secondary education. It is an important constituent in the educational ration of large numbers of pupils. Instruction in algebra and plane geometry are staple offerings in almost all secondary schools. Algebra particularly is very generally required for graduation from high school and for admission to college. Not only is mathematics important for its widespread occurrence in secondary-school curricula; it represents concisely some of the trends and the troubles which have recently forced several secondary-school subjects to seek somewhat opportunistic reforms or rationalizations to bolster their defensive positions.

Early introduction of mathematics into the curriculum. Early in this nation's history the mathematics taught in the secondary schools was presumed to be preparation for the needs of shop and counting house, and the curriculum contained little mathematics other than arithmetic. In later decades pioneer expansion on land and sea provided some justification for training in navigation and surveying, and geometry and trigonometry were established in the curriculum. Present-day cynics, observing how studies which were once justified by vocational need have persisted in the education of later generations of pupils who have no such need, like to point to this continuance of mathematical instruction as an apt but unhappy instance of the tendency of school subjects to become vested interests. However, contemporary proponents of mathematical instruction maintain that these mathematical subjects are not entirely without vocational values, although they will admit that these values are highly contingent, limited to relatively small numbers of pupils, and difficult to predict in the case of particular pupils at the secondary-school level. It seems obvious that the subsequent vocational utilities are so limited as to provide no adequate justification for mathematical instruction on the secondary-school level. This is rather generally admitted by leading

authorities, but those who are familiar with instructional practice in our schools have reason to regret the fact that teachers of mathematics often make extravagant claims for vocational values when it becomes necessary, as it often does, to comfort their doubting pupils.

Disciplinary values of mathematics. However, justification for mathematics in the secondary school has not had to depend much upon vocational values; during the years when its position in the curriculum was being well established educators and laymen were devoted adherents of a disciplinary theory of education, and, be it noted, some of them still are devoted to it. Nothing could have been more fortunate for the popularization of mathematics in the American secondary school, for mathematics had long been considered to be excellent material for training the mind. So confident were the proponents of mathematics instruction in basing their claims for the subject upon its disciplinary values that they were content to disregard other possible values of the subject. For example, Schultze, in presenting an important treatise on the teaching of mathematics, said:

The chief object of this book is to contribute towards making mathematical teaching less informational and more disciplinary. . . . This book is modern in the sense that it attempts to make mathematical instruction less informational and tries to show how to train students in attacking mathematical problems instead of merely making them learn mathematical facts. But it is not modern in the sense that it advocates certain recent fashions which aim to replace the true study of mathematics by applications of doubtful value. While admitting a certain amount of applied work is very useful and interesting, the author does not believe that the true value of mathematical study lies in its practical utility, and hence cannot admit that the mensuration of parquet floors or the construction of window designs forms the true end of mathematical study.²

General acceptance of the disciplinary theory of education was by no means the only influence which strengthened the position of mathematics. College entrance requirements were of very direct and tangible assistance. Early in the nineteenth century algebra began to be prescribed for admission to college, and long before the turn of the century both algebra and geometry were almost universal prescriptions. This condition continued well into the twentieth century, with the result that these subjects were a staple and traditional part of the

² Arthur Schultze: *The Teaching of Mathematics in the Secondary School*. New York: The Macmillan Co., 1912. 370 p. By permission of the publisher.

academic programs of large proportions of the pupils in our secondary schools. It was only natural that instruction in mathematics, shielded by college prescriptions, panoplied with the disciplinary theory, and widely acclaimed by those for whom tradition is sufficient evidence of merit, should have been lulled into an unwarranted sense of well-being and security. There appeared to be little reason for change, and so continuously did mathematical instruction grind deeper into its customary ruts that its optimistic friends praised it for being so well organized and standardized.

Weaknesses of mathematics instruction. But this prosperous contentment was soon to be sharply disturbed. A host of difficulties, any one of which was potent enough to weaken the defenses of mathematics, arose at once to throw its forces into what may be mildly described as a panic of fear and confusion. Briefly, educators very generally disclaimed the validity of general discipline; in fact, they were often willing even to disbelieve in the probability of transfer of specific disciplines. Changing social conditions produced such a vast influx of young people into the colleges and universities that these institutions were forced to modify their prescriptions for admission. By the same token the secondary schools were even more crowded with youths whose abilities and ambitions, or perchance their lack of them, were such as to challenge the ingenuity and the patience of even the most able teachers. And, in addition, all of these factors and the spirit of the times produced a strong demand for education of a practical sort, a training which would directly prepare pupils for "life." Aroused by these changed conditions many critics and reformers arose to attack the teaching of mathematics and, in some cases, to suggest remedies for its ills.

High percentage of pupil failures. Many critics call attention to the large numbers of secondary-school pupils whose attempts to study mathematics result in academic failure. Elementary algebra continues to hold the dubious distinction of producing more failures than any other high-school subject. In New York, for example, no less than 10 per cent and in some years more than 30 per cent of the pupils taking Regents' examinations in mathematics fail, and in many school systems in this state pupils whose work during the year has been unpromising are not permitted to take the Regents' examinations. When it is considered also that many of these failing pupils are per-

mitted if not encouraged to repeat their mathematics courses only to fail again, there is obviously some justice in the criticism that such practices do more harm than good to the large numbers of pupils who fail. The fact of failure in itself indicates that these failing pupils have not attained the intended outcomes of their courses, and it may be inferred that the failing pupils' attitudes toward mathematics and possibly toward education in general are unfavorable.

Unpopularity of mathematics among college students. However, the values produced through mathematical instruction must not be assessed chiefly in terms of the performance of its least successful students. Possibly contemporary instruction in mathematics might be justified in terms of values attained by successful pupils, if they balance the unsatisfactory attainments of the unsuccessful. One type of evidence may be drawn from the facts showing the extent to which college graduates (practically all of whom have studied mathematics in high school) increase or diminish their attention to mathematics during their college years. The National Survey provides pertinent evidence. This study shows that in seven representative colleges and universities the graduates of the class of 1930 had taken very much less mathematics in college than in high school. In fact these college graduates on the average had taken 16.8 per cent of their high-school work in mathematics and only 4.3 per cent of their college work in that field. Only in the fields of classical languages was the amount of decrease comparable to that in mathematics.² Another phase of this investigation shows that the 1930 graduates at Vassar, Princeton, and George Washington University had in high school severally taken 19.5, 22.3, and 15.8 per cent of their work in mathematics, while mathematical studies in college amounted only to 4.7, 5.3, and 2.1 per cent. In these cases also only in Latin and Greek was the decrease comparable to that in mathematics.³ In view of the fact that college students who "major" in mathematics ordinarily take relatively large numbers of courses in that field and thus tend to raise considerably the averages for college students in general, it may be inferred that these percentages do not in any way exaggerate the extent to which students who have studied mathematics in high

² A. K. Loomis and others: *The Program of Studies*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no 19, p. 259.

³ *Ibid.*, p. 257.

school are apparently willing to look elsewhere for educational values as they continue their schooling. If college students are assumed to be relatively superior in intelligence, and to have enough educational maturity to have valid judgments concerning the values of their own educational experiences, this widespread abandonment of mathematics seems to be a significant indictment of the subject as it is taught in our secondary schools.

Need for mathematical concepts in other fields of study. In spite of the fact that many students continue their schooling with apparent academic success even though they generally avoid mathematics in the colleges, the claim is frequently made that mathematics instruction in high school is productive of insights and abilities which are necessary for successful work in other subjects. There are at least a few significant bits of evidence which have some bearing on this matter. In one investigation college teachers representing various departments of instruction were asked to indicate the extent to which knowledge of various specified mathematical concepts is necessary or of some value to students in their respective fields.⁴

Several of the judges who rated the values of some forty-one mathematical topics believed that some of the topics have some value for students in their subjects, but as many as sixteen of the forty-one topics were rated by fifty per cent of the judges as having little or no value. Only one topic, "meaning and use of elementary concepts in statistics," was rated as essential by as many as fifty per cent of the judges from the field of the social sciences. Sixteen of the forty-one topics were designated as essential by as many as one-half of the judges in the field of physical science; and no other topics were rated as even having considerable value or some value by as many as fifty per cent of the judges in this field. From this general expression of presumably authoritative opinion it may be inferred that there are several topics ordinarily considered to be necessary elements in mathematical instruction which are of little use in the advanced study of any other field, that there are very few topics which can be considered essential to the advanced student regardless of his field of specialization, and that there are considerable numbers of topics which may be

⁴ The National Committee on Mathematical Requirements: *Reorganization of Mathematics in Secondary Education* Oberlin, Ohio: The Mathematical Association of America, Inc., 1923, pp 44 ff

very useful to a college student, if he happens to become a specialist in the physical sciences. In this connection it may well be remembered that the instability of the vocational preferences and special interests of secondary-school pupils, or even of college students for that matter, makes rather impracticable at the high-school level the prediction of an individual's field of college specialization. On the basis of these facts at least, there are relatively few mathematical concepts which are essential as preparation for prospective college students generally. And what is true of prospective college students would seem to apply with even greater force to the many secondary-school pupils who have no prospect of becoming college students.

Mathematical concepts useful in everyday life. But there are other investigations intended to throw light upon these questions. Thorndike,⁵ in an attempt "to arrive at a notion how far algebra has penetrated into the intellectual and practical life of men of intelligence and achievement comparable to that of high-school graduates," presents the results of detailed analyses of representative articles in the *Encyclopedia Britannica*. Of the 7551 articles studied, 269 contained some use of mathematics. Seven of these articles required knowledge of elementary algebra, 44 required algebra beyond elementary, and 167 involved vocabulary of "geometric shapes." If the relative amount of space occupied by these articles is considered they seem to be more important than their scant frequencies suggest. Thorndike shows that general intelligence, rather than knowledge of mathematics as such, is required to understand many of these articles. His findings indicate that the statistical graph and the formula are the parts of elementary algebra which are most likely to be encountered by the person who reads widely. In this connection Thorndike makes the significant observation that inasmuch as statistical graphs are very commonly used in newspapers and magazines, the ability to read them is not solely to be arrived at through a study of algebra. He points out also that the formula in algebra is by no means the same as the formula in other fields of knowledge.

Thorndike also reports facts indicating the extent to which algebraic concepts are encountered in secondary-school textbooks. These books were rather fully representative of the social sciences, natural

⁵ Edward L. Thorndike and others: *The Psychology of Algebra*. New York. The Macmillan Co., 1926, pp. 83 ff. By permission of the publisher

sciences, and practical arts. In the majority of cases, algebraic concepts were encountered very infrequently, but there was considerable use of concepts which might be interpreted as algebra in textbooks concerned with chemistry, physics, and mechanical drawing.⁶ In view of the fact that the authors of high-school textbooks know that many of their readers are studying or have recently studied algebra, we may believe that they would be disposed to capitalize such knowledge perhaps more than would authors whose books are addressed generally to a more miscellaneous group of readers. Hence, Thorndike's summary of his findings is indicative not only of the extent to which the student of algebra may find occasion for its use in his other studies, but, inferentially, of the intellectual utility of algebra in other fields of thought. He says:

1. Omitting from consideration courses in mathematics itself, there is no need in high-school studies for facility in complex manipulation of polynomials.
2. In present textbooks there is no use made of the mathematical concept of function.
3. Except in chemistry and physics and agriculture the study of equations has at present no utilization in high-school work
4. The making of formulas is practically not required of the high-school student.
5. The comprehension and evaluation of formulas is required only in physics, chemistry, and in the physical and chemical parts of general science.
6. The mathematical graph, either as illustration of the scope of the formula, or as vivifying the concept of function, practically does not occur in any high-school work. (Its only utilization in high-school physics lies in the reading and construction of graphs illustrating the resolution of forces.)
7. The statistical graph is used to a greater or less degree in all high-school subjects investigated, the number of linear inches given to graphs (in cuts and explanations) being twice as great as for all other types of the utilization of algebra combined.⁷

Need for familiarity with certain mathematical concepts. Facts of this sort obviously do not give much support to advocates of con-

⁶ Some may wish to infer from this that, if pupils are to study these subjects, it is necessary to equip them in advance with the algebraic tools, some suggest that, if these subjects in particular actually require the use of some algebra, it should be presented as needed in connection with these subjects; others wonder whether it might not be feasible to present the facts of chemistry and physics without using algebra. The reader is apparently free to choose whatever inference best suits his personal biases

⁷ Thorndike and others: *Op. cit.*, pp 72-73 By permission of the publisher.

ventional algebra courses in the secondary school, but it need not be inferred that instruction in algebra is without any valuable potentialities. Thorndike⁸ asserts emphatically that mere familiarity with algebraic symbols and concepts has much value, although he is careful to call attention to the important difference between knowledge of concepts and ability to perform mathematical manipulations.

Thorndike also calls attention in this connection to the necessity of distinguishing between the few concepts which the ordinary layman may come to understand adequately through a few weeks of instruction and the relatively long, rigorous, technical disciplines through which the productive specialist in mathematics or in certain closely related engineering arts and physical sciences achieves masterly competence. The practical importance of these two types of mathematical values will later be dealt with more fully. For the present additional bases of criticism of mathematics instruction merit consideration.

Lack of mathematical competence among pupils. The fact that students of mathematics often fail to attain intended goals is frequently cited by critics of mathematics. There are some who imply that even though the nature of the mathematics curriculum and its generally accepted objectives are presumed to be sound, the extent of failure to achieve reasonable mastery on the part of pupils is a serious indictment of mathematics in the high school. It has already been noted that large numbers of pupils fail to complete their mathematics courses satisfactorily. This is in itself a serious matter, but it is aggravated by the findings of some investigators who have sought to discover what pupils who have been nominally successful have actually learned about mathematics. Breslich, commenting upon the findings of several pertinent investigations, asserts that "... when the pupils are tested some time after they have finished the course in algebra or when they are called upon in other work to use what they have been taught they show invariably a lack of ability even in the simplest manipulative processes. When test items require reasoning and real understanding the results are still more discouraging."⁹

Thorndike¹⁰ presents facts which confirm Breslich's judgments. In

⁸ Thorndike and others: *Op. cit.*, *passim*.

⁹ E. R. Breslich: "Understanding and Mechanical Performance in Algebra," *The Mathematics Teacher*, 25:58 (February, 1932).

¹⁰ *Op. cit.*, pp 320-22.

describing the results of a test given to superior pupils who had studied algebra at least one year in superior private and public secondary schools, he makes this statement: "It does not seem an exaggeration to say that, on the whole, these students of algebra had mastery of nothing whatsoever. There was literally nothing on the test which they could do with anything like 100% efficiency."

Such facts as these could be expected to disturb the complacency of teachers of secondary-school mathematics, and leaders in the field have striven valiantly to cause some reforms. Undoubtedly the most important influence in giving direction to these reforms was the report of the National Committee on Mathematical Requirements, *The Reorganization of Mathematics in Secondary Education*.¹² This report contains some recommendations which have not yet had much influence upon the teaching of mathematics, but, on the other hand, there are practically no reforms now being advocated by authorities in the field which were not definitely advanced by the report.¹³ Hence, it serves as a convenient point of reference for consideration of contemporary tendencies.

Further criticisms of contemporary mathematics courses. The report affirms that the foremost aim of mathematical instruction should be the development of such understanding as is necessary "to an insight into and control over our environment and to an appreciation of the progress of civilization in its various aspects,"¹⁴ and it derogates emphasis upon technical manipulations. Although this recommendation is somewhat vague it clearly supports the contention that for the ordinary person the development of insights and ideas concerning mathematics is more valuable than training in mathematical techniques. This principle receives the persistent and vigorous support of leaders in the teaching of mathematics, but it seems to find little favor at the hands of those who are responsible for the preparation of textbooks, "new" courses of study, externally imposed examinations, and the actual conduct of classroom instruction. No matter where one looks he will find plentiful evidence in support of the criticisms made

¹² The National Committee on Mathematical Requirements. *Op cit.*, 652 p. If this publication is not accessible, a summary published as U S Bureau of Education Bulletin, 1921, no 32, may serve the reader's needs

¹³ Throughout the remainder of this chapter references to the report should be interpreted as designating the report of the National Committee on Mathematical Requirements.

¹⁴ *Op cit.*, pp 10, 11

by Betz when he summarizes thus the "indictment against the prevailing type of algebra teaching":

1. It is woefully inefficient.
2. It is constantly mistaking symbols for ideas, and manipulation for thinking.
3. It puts a premium on an inert and educationally meaningless technique, and neglects the opportunities for application
4. It fails to give prominence to the basic cultural ideas which alone justify a mandatory study of algebra.⁴

Such criticism as this may not be lightly dismissed, for it comes from a competent authority who is primarily interested in the teaching of mathematics and it strikes sharply at conventional rationale of mathematics instruction.

Superficially, one might be tempted to criticize severely teachers of mathematics for their apparent disregard of the persistent recommendations of their own leaders; but the fault is not entirely theirs. Although the report recommended the diminution of drill in technique, it stressed the importance of training to produce facility and accuracy in "fundamental operations." Since it stipulated also that the courses in the seventh, eighth, and ninth grades should provide a foundation specifically preparatory for advanced elective courses in the senior high-school grades, it is not surprising that mathematical instruction even in the junior high school has maintained the traditional emphasis upon techniques. Furthermore the time allotments designated in the report were such as to imply that a considerable degree of technical competence was intended. In suggesting various alternative arrangements of courses for the junior high-school grades the report recommends that three years be devoted chiefly to arithmetic, algebra, and geometry. Three years is obviously not more time than is necessary to make pupils proficient in mathematical computations and manipulations. But any teacher who attempts to use three years for the purpose of putting his pupils into possession of "basic cultural ideas" rather than technical competence would probably reach both the end of his wits and the point of diminishing returns before his three-year term also expires. The major concepts which leaders in the field designate are few in number. Smith mentioned four topics, "the formula, the graph, the negative number, and the linear equation, . . . as the

⁴ William Betz: "Whither Algebra? — A Challenge and a Plea," *The Mathematics Teacher* (February, 1930), p. 125. (Reprint.)

minimum requirements necessary for understanding the meaning of the subject and as constituting the chief use of the subject on the part of the average well-informed citizen.”¹⁵ This list obviously has reference only to concepts in the field of algebra. Thorndike had reference to a somewhat similar list when he commented upon the possibility of instructing the ordinary layman concerning them in a few weeks. Betz¹⁶ affirms that there is general agreement that only a half-dozen topics deserve to be included in an introductory algebra course, and he takes the position that three of them, the formula, the equation, and the graph, are important. He makes the significant comment that if the entire course is concerned solely with these topics, “we shall not only achieve a far greater economy and concentration, but shall also remove the prevailing impression that the customary course is an aimless array of ‘isolated and irrelevant details.’” It need not be inferred that this reference to economy and concentration was intended to support Thorndike’s belief that instruction in the essential concepts requires no more than a few weeks. The proponents of any high-school subject are not to be expected to take initiative in reducing its vested interests in the curriculum.

Recent trends in mathematics courses. However, it is probably to the credit of those interested in the teaching of mathematics that they have for many years recommended the elimination of many obsolete or persistently useless items of content. This continuing trend would undoubtedly result in the reduction of elementary courses, were it not for the fact that it is balanced by a trend to bring down into elementary courses materials which formerly were presented only in advanced courses. For example, general mathematics courses in the junior high school are made to contain elements from geometry, trigonometry, and statistics. Thus there is a notable tendency, even though it is more apparent in the recommendations of authorities than in the courses actually in general use, to make the elementary courses increasingly representative of the entire field of mathematics.

There is one plan of procedure which, although it was recommended in the report and although it is characteristic of other fields of secondary-school instruction, has not made much progress in the field of

¹⁵ David Eugene Smith: *The Progress of Algebra in the Last Quarter of a Century* Boston: Ginn & Co., 1925, p. 13.

¹⁶ *Op cit*, p. 120

mathematics. This is the introduction of new materials into courses. The report²⁷ recommended that historical and biographical materials be introduced. This seems desirable. If it is the purpose of mathematical instruction to develop in the pupil understanding and appreciation of the significance of mathematics in our culture, this would seem to be accomplished more effectively through the use of materials showing the nature and importance of mathematics as a part of our cultural environment than by compelling the pupil to undertake a narrow regimen of technical exercises. But the actual instruction in our schools ordinarily is completely innocent of any reference to these cultural materials. No doubt this is partially a result of the fact that the report made its recommendation very half-heartedly. It was suggested that teachers should inform themselves concerning the history of mathematics and that they introduce such materials casually as time permits and as the spirit moves them. One wonders whether teachers of mathematics have been so unremittingly disciplined with the symbols and the processes of conventional mathematics courses that they cannot bring themselves to present facts which would have to be presented in the vernacular.

The report recommended also that particularly in the teaching of algebra there should be emphasis upon the function concept. This recommendation has been supported repeatedly by authorities on mathematical instruction. Some leaders even affirm that the function concept should be the basic element of all mathematics teaching. The National Council of Teachers of Mathematics has emphasized the importance of the function concept by devoting an entire yearbook to it.²⁸ However, it seems that teachers of mathematics do not capitalize this matter as their leaders would have it done.²⁹

Possibly this deficiency is due in part to the nature of the concept itself. Perhaps only accredited mathematicians are competent to speak of the matter (and if the reader consults several of them he may be somewhat bewildered by the disagreements and circumlocutions

²⁷ *Op. cit.*, pp. 14 ff.

²⁸ The National Council of Teachers of Mathematics: *Ninth Yearbook*, "Relational and Functional Thinking in Mathematics." New York: Teachers College, Columbia University, 1934. 215 p.

²⁹ See E. R. Breslich: "Developing Functional Thinking in Secondary School Mathematics," chap. V of the *Third Yearbook* of the National Council of Teachers of Mathematics (1928), pp. 42-56.

common among them); but, boiled down to simple terms, the function concept seems to imply that facts in isolation are without meaning, that their significance and validity are dependent upon their relationships, and that variability with reference to one fact implies variability with reference to related facts. The somewhat disillusioned layman may remark that such ideas are obvious to anybody who has lived a few years with his eyes open, and he may perhaps be pardoned for asking why the mathematicians should make any great fuss about the matter and whether they should rightfully lay claim to monopolistic ownership of the idea.

Apparently authorities on mathematics teaching are themselves troubled by a quandary, for even though they recommend mathematical studies as means to the development of functional or relational thinking, they frequently launch out into other fields of knowledge in order to find vital illustrations of such thinking. For example, it is asserted²⁰ that "everyday illustrations and problems suggested by the environment and the interests of the pupils will be vastly superior in their stimulating freshness" to the kinds of materials ordinarily found in mathematics texts; and it is further stated that the phenomena of history and of natural science are replete with functional relationships which we can and must understand. It seems improbable that mathematics is essential as an avenue through which the majority of laymen should discover that the facts of this world are *related*, although as a special discipline developed to the point of thorough mastery by some individuals it probably contributes new insights which may be employed by such specialists so as to confer indirectly unquestionable benefits to all. It may well be that in the teaching of mathematics as such pupils should be led to see its internal relationships, and to some extent its relationships to other fields of knowledge, but we should be charitable enough not to blame mathematics teachers if they find it difficult to teach mathematics in such a way as to make it an open sesame to the recognition of functional relationships in all fields of knowledge.

Need for different courses for prospective mathematicians and laymen. A significant drawback to the adequate solution of problems of mathematical instruction results from the attempt to provide in one course or in a single sequence of courses instruction both for pupils who

²⁰ William Betz *Op. cit.*, pp 118-19

have some prospect of becoming competent mathematical technicians and for those who, though they need to know something about mathematics, will never have either the occasion or the ability to perform mathematical computations. Neither group of pupils is well suited by a course offered to both groups alike. The non-mathematicians are made to devote much time to manipulative exercises nominally intended to develop skilled technical competence. For such pupils these exercises actually do not result in competence, and in the majority of cases apparently they are little more than time-wasting academic busy-work. In many instances these arid ceremonies produce in pupils discouragement, mistrust, and perhaps active hatred for mathematics, and even after a year or more they may result in not the slightest glimmerings of insight concerning the nature and significance of mathematics as an important element in our common culture. On the other hand, the attempt to provide for the relatively few pupils who may become mathematicians is vitiated by the emasculation of performance standards so as to make it possible for the majority of pupils nominally to pass the course. In attempting to serve the needs of both types of pupils the mathematics course degenerates into a sort of academic mumbo-jumbo which is meaningless for some pupils and innocuously futile for others.

No doubt this misfortune results partially from the fact that the specialist tends naturally to place a high value upon the technical disciplines which have produced competence in his own case. He assumes without question that the kind of training he has had must necessarily be superior. In some cases he seems to believe that his own approach to the subject is the only possible approach. This point of view seems to have been very persistent in maintaining mathematical instruction as a technical drill ground and in neglecting the illuminating conceptual possibilities of mathematics as a field of knowledge.

An interesting possibility of adapting the subject matter of mathematics so as to produce more generally useful educational values is described in the *Thirteenth Yearbook* of the National Council of Teachers of Mathematics, "The Nature of Proof."²² This study emphasizes the fact that demonstrative geometry can be used not as some-

²² Harold P. Fawcett: "The Nature of Proof," *Thirteenth Yearbook* of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1938. 146 p

thing to be memorized and not as something to be performed after a set pattern, but as a field for the development of insight and critical reasoning.

The results of such emphasis in planning and teaching geometry to secondary-school pupils suggest that it is possible thus to develop a kind of competence in critical thinking which the pupil will be disposed to use not only in mathematics, but also in other fields. Whether or not such competence can readily be produced by most teachers or in the majority of pupils is not yet clear. Moreover, even though it is demonstrated that geometry can be so taught as to develop directly the mental discipline which has often been assumed to be an incidental by-product, we do not know whether this way of thinking or discipline is best developed through mathematics instruction or through other means. In any case the ability to deal critically and rationally with facts is so highly important as to justify full exploration of effective ways of producing it.

Precarious future of mathematics instruction. Some educational authorities are so impatient with the congenital myopia of the mathematicians that they are tempted to solve the problem for the present by suggesting merely the elimination of mathematical instruction. For example, Judd, who has been a lucid and forceful advocate of the potentialities of mathematics,²² sounds this warning:

If the mathematicians are incapable of discovering or unwilling to discover and utilize the illuminating informational aspects of their science, our schools will pass through a period of reduction in the amount of mathematics included in the curriculum. The traditional computational introduction to informational mathematics is clumsy and ineffective. The hard crust of tradition which for generations has covered and obscured the real essence of mathematics must be removed. When one recognizes the historical fact that a long procession of textbooks in mathematics has followed antiquated models so faithfully that it is almost impossible to tell them apart, one realizes that a revolution may be necessary to disturb the complacent slumbers of the teachers and textbook makers in this field. Perhaps American schools will have to be deprived for a time of the full benefit of the kind of mathematics now current in order that the mathematics teachers may be persuaded to mend their ways.²³

²² Charles Hubbard Judd "The General Psychology of the Mathematical Sciences," chap. VI of his *Psychology of Secondary Education*. Boston: Ginn & Co., 1927, pp. 71-99

²³ Charles H. Judd "Informational Mathematics Versus Computational Mathematics," *The Mathematics Teacher*, 22:195-96 (April, 1929)

Unhappily, this criticism is still warranted and the prediction is substantiated by the fact that mathematics seems steadily to lose ground in the American secondary school. It remains to be seen whether the traditional lethargy of mathematics instruction will continue to justify its decline or whether its proponents will develop an instructional offering which deserves to be fostered for its educational merits.

Obviously, instruction in mathematics is in a bad way. If it were not for the glacial slowness with which changes in curricula take place, mathematics in the secondary school might soon become little more than a somewhat unpleasant memory. However, even though the subject has been indicted and although its prospects for acquittal are not bright, there is surely enough time left in which the accused may give such promise and evidence of disposition to leave off his evil ways that he may be justly acquitted, or at least have his sentence suspended.

Before mathematical instruction in our secondary schools can be restored to a position of complete trust it must arrive at intelligent and feasible remedies for the difficulties suggested by such questions as these:

1. *Is it possible to provide, particularly for the vast majority of pupils who will have little need for specialized proficiency in mathematical operations and who will never become technically skilled mathematicians, curriculum materials designed to help laymen to understand and appreciate the nature of mathematics itself, its contributions in the advancement of civilization, and its benefits even to those who are not mathematicians?* It is implied that such materials would be primarily concerned with the production of understanding and appreciation of the general nature of certain basic mathematical concepts, the nature and significance of the work which the mathematician does, the importance of his contributions to workers in other arts and sciences, and the historical development of these matters as aspects of civilization and culture. It need not be assumed that such materials would be appropriate only for non-mathematicians. They seem to have merit both for the layman and for the mathematician. Presumably they might well be embodied in the curriculum of basic constants, provided that appropriate adjustments are made to suit different levels of pupil ability.
2. *Can the secondary school select those elements of technical training which are effective preparation for advanced specialization in mathematics or for the technical employment of mathematics in other fields of specialization and so arrange the organization and administration of courses that individual pupils may economically obtain the technical training needed in*

individual cases? Only a small proportion of secondary-school pupils require technical competence in the use of mathematics ordinarily taught in the high school, and apparently among those who need it there is considerable variation in the kinds and amounts of technical training needed. Hence, it may be desirable to divide much of this technical training into relatively small unit courses, so as to permit pupils to obtain selectively the particular types of training needed

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Analyze several representative textbooks in algebra or geometry to discover what concepts presented therein are significant for the layman. Formulate positive statements of these concepts.
2. What proportion of pupils in the ninth-grade classes of representative high schools will probably pursue advanced mathematical studies or enter occupations in which they will need technical proficiency in algebraic processes?
3. Select a fairly typical group of men and women all of whom have studied algebra one year or more. Find out what knowledge they now have of the major topics in algebra.
4. Prepare a definitive essay in which you make clear the nature of the mathematicians' concept of function
5. Refer to Thorndike's conclusions concerning the phases of algebra which seem to be needed in the study of other high-school subjects. Analyze several contemporary high-school algebra courses or textbooks to discover how much of each course is devoted to these topics.
6. Prepare a general outline and brief description of a high-school course in mathematics, the sole purpose of which is to produce understanding rather than technical proficiency.
7. Analyze a number of articles in yearbooks of the National Council of Teachers of Mathematics in the attempt to determine how much use their authors have made of the mathematical concepts which they commend as being fundamental tools of thought.
8. Find out how teachers of secondary-school courses in mathematics answer the question, What is the best single reason for teaching algebra, or geometry, to secondary-school pupils? If possible find out also how teachers of other subjects answer the same question.
9. Show something of the trends in the content of mathematics courses by analyzing the content of textbooks published during the past thirty years.
10. Administer a standardized test in algebra or geometry to pupils who have just completed the study of the subject and to a comparable number who last studied it about two years ago. Compare and interpret the results.

11. Analyze and summarize a number of recent books and magazine articles on the teaching of mathematics in order to become acquainted with the various criticisms which are being made of mathematics in the secondary schools and the suggestions or recommendations made for its improvement. Consider in detail the mathematics instruction in a particular secondary school in the attempt to see which of these criticisms apply to it and which of the recommendations might appropriately and feasibly be used to improve the mathematics program.
12. Attempting as far as possible to avoid prejudice concerning it, evaluate as fully and as objectively as possible the existing program of mathematics instruction and training in a secondary school. Give no more attention to what is done than to desirable things which might well be done. On the basis of this evaluation, work out as concretely as possible a comprehensive plan whereby the full values of this field of education may be more suitably realized by the different groups of pupils attending the school.
13. Analyze the content of a number of popular books on mathematics which have been written for the layman in order to determine what major concepts or ideas are developed in them. Compare the results of your analysis with the content of secondary-school mathematics textbooks in order to determine the extent to which they present to boys and girls in secondary school similar ideas.
14. Although it may be desirable that as many youngsters as possible shall develop some proficiency in the operations of higher mathematical subjects, it is important that all persons shall have some minimal level of competence in the uses of elementary arithmetic. As an approach to this matter, administer a standardized arithmetic test designed for eighth-grade pupils to all pupils in a high school in order to find out how many pupils and what kinds of pupils at various grade levels are unable to meet the eighth-grade norm. Use your findings as a basis for developing plans whereby the school may more effectively help pupils to reach or to maintain a reasonably satisfactory level of arithmetic competence.

SOME MATERIALS WHICH MAY POSSIBLY BE USEFUL FOR THE FURTHER STUDY OF MATHEMATICS INSTRUCTION IN THE SECONDARY SCHOOL

It is not an easy task to suggest materials in which the general reader will find something to interest him in the mathematics instruction in the secondary school. It will probably be better if he will assume at the outset that, even if their publications do not interest him, there may be some point in trying to find out what interests the teachers of mathematics. From that standpoint he may find it useful to examine the two books by Breslich, the textbooks by Hassler, by Schultze, and by Smith and Reeve. He may wish also to examine some of the yearbooks of the National Council of Teachers

of Mathematics Of the remaining special studies which are listed below, the only one which is likely to be very significant for the non-specialist is the study by Thorndike. Its content is much less forbidding than its title, and it presents some significant data and interpretations concerning the intellectual utility of algebraic concepts. With the exception of the monograph by Shibli, which is somewhat inspirational in tone, the other studies listed below will be of interest to the general reader chiefly as examples of the technical studies in the teaching of mathematics with which specialists in that field have been concerned. Persons who wish to locate more studies of somewhat similar nature will do well to refer to the summaries and bibliographies by Douglass in the *Review of Educational Research*.

Breslich, Ernst: *The Administration of Mathematics in Secondary Schools*. Chicago: University of Chicago Press, 1933. 407 p.

— *The Teaching of Mathematics in Secondary Schools*. Chicago: University of Chicago Press, 1930. 240 p.

Cairns, George J.: *An Analytical Study of Mathematical Abilities*. Catholic University of America, Educational Research Monographs, vol. VI, no. 3. Washington, D.C.: Catholic Education Press, 1930. 101 p.

Congdon, Allen R.: *Training in High School Mathematics Essential for Success in Certain College Subjects* (Contributions to Education, no. 403) New York: Teachers College, Columbia University, 1930. 102 p.

Douglass, Harl R.: "Mathematics," *Review of Educational Research*, 4:479-88, 531-33 (December, 1934).

— "Mathematics," *Review of Educational Research*. 2:7-21, 81-82 (February, 1932).

Everett, John Phelps: *The Fundamental Skills of Algebra*. (Contributions to Education, no. 324) New York: Teachers College, Columbia University, 1928. 109 p.

Hassler, Jasper Ole, and Smith, R. R.: *Teaching of Secondary Mathematics*. New York: The Macmillan Co., 1930. 405 p.

McCormick, Clarence: *The Teaching of General Mathematics in the Secondary Schools of the United States*. (Contributions to Education, no. 386.) New York: Teachers College, Columbia University, 1929. 173 p.

National Committee on Mathematical Requirements: *Reorganization of Mathematics in Secondary Education*. Oberlin, Ohio: The Mathematical Association of America, Inc., 1923. 652 p.

National Council of Teachers of Mathematics. New York: Teachers College, Columbia University:

"A General Survey of Progress in the Last Twenty-Five Years," *First Yearbook*, 1926.

"Curriculum Problems in Teaching Mathematics," *Second Yearbook*, 1927.

- "Selected Topics in the Teaching of Mathematics," *Third Yearbook*, 1928.
- "Significant Changes and Trends in the Teaching of Mathematics Throughout the World Since 1910," *Fourth Yearbook*, 1929.
- "The Teaching of Geometry," *Fifth Yearbook*, 1930.
- "Mathematics in Modern Life," *Sixth Yearbook*, 1931.
- "The Teaching of Algebra," *Seventh Yearbook*, 1932.
- "The Teaching of Mathematics in the Secondary School," *Eighth Yearbook*, 1933.
- "Relational and Functional Thinking in Mathematics," *Ninth Yearbook*, 1934.
- "The Teaching of Arithmetic," *Tenth Yearbook*, 1935.
- "The Place of Mathematics in Modern Education," *Eleventh Yearbook*, 1936.
- "Approximate Computation," *Twelfth Yearbook*, 1937.
- "The Nature of Proof," *Thirteenth Yearbook*, 1938.
- Perry, Winona M.: *Study in the Psychology of Learning in Geometry*. (Contributions to Education, no. 179.) New York: Teachers College, Columbia University, 1925. 59 p.
- Pickell, Frank G., and others: "Junior High School Mathematics," chap. XI of "The Junior High School Curriculum." *Fifth Yearbook* of the Department of Superintendence of the National Education Association, 1927, pp. 182-212.
- Schorling, Raleigh, and others: "Research in High School Mathematics," chap. XV of "The Development of the High-School Curriculum." *Sixth Yearbook* of the Department of Superintendence of the National Education Association, 1928, pp. 328-43.
- Schultze, Arthur: *The Teaching of Mathematics in the Secondary School*. New York: The Macmillan Co., 1912. 370 p.
- Shibli, J.: *Recent Developments in the Teaching of Geometry*. State College, Pennsylvania: J. Shibli (219 Fairmount Avenue), 1932. 252 p.
- Smith, David E., and Reeve, W. D.: *The Teaching of Junior High School Mathematics*. Boston: Ginn & Co., 1927. 411 p.
- Thorndike, Edward L., and others: *The Psychology of Algebra*. New York: The Macmillan Co., 1926. 483 p.
- Welte, H. D.: *A Psychological Analysis of Plane Geometry*. University of Iowa Monographs in Education, 1st series, no. 1. Iowa City: University of Iowa, 1926. 47 p.
- White, Annabel L.: *The Retention of Elementary Algebra through Quadratics after Varying Intervals of Time*. Washington, D.C.: Judd and Detweiler, 1932. 66 p.

NATURAL SCIENCE

THE person who takes pleasure in believing that this is an age of science and that American civilization is strongly tinctured with scientific progress may well be perplexed and dismayed at the fortunes of the natural sciences in the secondary-school program. Although practically all secondary schools offer instruction in natural science and although the number of courses usually offered compares very favorably with the offering in other academic subjects,¹ the secondary-school pupil usually gives less attention to science courses than to other academic subjects. Not only does the typical pupil now take a smaller proportion of work in natural science than in other academic subjects, but he has been diminishing that proportion in each succeeding decade. The National Survey presents pertinent data concerning the distribution of work taken by graduates of six representative high schools in 1890, 1900, 1910, 1920, and 1930.² During this forty-year period natural science has lost more ground than any other academic field save foreign languages. Furthermore, science could ill afford the loss, for the foreign languages in 1930 retained a position approximately equivalent to that of science in the heyday of 1890. At its present stage in the downward trend natural science receives less attention from the pupils being graduated by these high schools than any other field of academic study has received during the entire span of forty years. Regardless of other considerations, this trend in itself sharply demands consideration of its various causes and of the remedies which may be needed to strengthen science instruction.

Handicap of late entrance into the curriculum. Doubtless some of its difficulties result from its relatively late entrance into the quarrelsome family of school subjects. Science courses had to compete with the more firmly entrenched mathematical, linguistic, and historical subjects. During the years when college entrance requirements largely

¹ A. E. Loomis and others: *The Program of Studies*. U S Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 19, p. 131.

² *Ibid.*, chap. XXIII.

determined the character of secondary-school curricula science courses were less favored than other academic subjects. Since natural science courses lacked support from college entrance requirements and had to compete on an elective basis with the growing offering of non-academic subjects, it was perhaps hardly to be expected that they would lead the academic procession. The lack of early prestige may have retarded the development of science instruction, but it is not yet apparent that the relaxation of subject requirements for college entrance has resulted in a more favorable outlook for science.

Unfortunate effect of "scientific" specialization. Probably a much more important influence in limiting the appeal of science instruction is the blighting prejudice of the scientific researcher. This influence has been reflected in several ways. For instance, it has been fashionable for scientists to be specialists.³ Scientific competence and specialization were assumed to be synonymous, and there was much truth in the merry gibe that a scientist is a man who knows more and more about less and less. This adulation of narrow specialization was reflected in the early tendency to divide the science curriculum of the high school into a considerable number of small compartments. In their entirety the score or more of science courses offered in high schools at the turn of the century covered reasonably well the general field of natural science. But, since particular high schools did not ordinarily offer more than a small fraction of the available courses, and since high-school pupils frequently did not take more than a part of what was offered, the science courses actually presented to pupils a very fragmentary and partial view of the total physical environment.

Parenthetically, it is only fair to point out that these conditions are by no means entirely chargeable to the scientists. They were much encouraged by current belief in disciplinary values. It was to be expected that the scientists' predilection for specialization would be supported by the notion that subjects of study are to be justified not so much for the scope or significance of their factual content as for the processes or "disciplines" employed by pupils in dealing with them.

The work of the "Committee of Ten." The vogue of specialization,

³ If the reader is familiar with the history of science he will realize that the vogue of narrow specialization is relatively recent and that it has already begun to give way to a broader approach. Secondary-school instruction in science has been unfortunate in that its formative years were contemporaneous with the tendency of scientists generally to indulge in a spree of specialization.

belief in the disciplinary theory of education, and the increasing desire of college authorities to set limits upon the expanding and miscellaneous secondary-school curriculum led almost inevitably to the work of the "Committee of Ten." The report of this committee established precedents which have largely determined the nature of science instruction ever since.⁴ These precedents have influenced the selection of courses to be offered, their sequential arrangement in curricula, the details of content and procedure in teaching, and educational policies with reference to their functions and administration. The committee recommended that, instead of studying several sciences briefly, the high-school pupil should specialize by devoting an entire year to a specific science. However, the actual program of courses recommended by the committee did not fully conform to this recommendation. For the first-year course physical geography was proposed as a general requirement. Botany and zoology were stipulated as alternatives for the second year. Physics, supplemented by astronomy and meteorology, was recommended for the third year. And in the fourth year chemistry, together with geology or physiography, and anatomy, physiology, and hygiene were suggested.⁵ The committee wished to stimulate the development of instruction in science, and all of these science subjects were recommended for pupils in three of the four curricula mentioned (i.e., Latin-Scientific, Modern Language, and English). But the Classical Course, which was almost exclusively linguistic, and which was also very highly esteemed among college authorities, was to include only physical geography, physics, and chemistry.

College-preparatory training assumed to be appropriate for all pupils. Another very significant aspect of the work of this committee was the recommendation that instruction in science, as in other subjects, should involve no distinctions between pupils preparing to enter college and those ending their formal education in the high school. Furthermore, the members of the subconferences dealing with science courses, the majority of whom represented colleges and universities, specified in considerable detail the content of courses, time allotments and methods of instructional procedure. Although this collegiate determinism was somewhat justified in a day when the high school was chiefly college-

⁴ *Report of the Committee of Ten on Secondary School Studies*. New York: The American Book Co., 1894. 249 p.

⁵ *Ibid.*, p. 41

preparatory in function, it had and continues to have serious repercussions in schools which have been forced to assume broader responsibilities.

Emphasis upon laboratory work. The scientist's myopia concerning his own field is amply demonstrated in another emphatic recommendation of this committee. It was insisted that laboratory work should be generously provided. To give effect to this recommendation detailed lists of experiments were suggested. In order to insure ample time for laboratory work, it was even suggested that pupils be required each week to devote the Saturday morning to it. It scarcely seems possible that these authorities cherished the hope that all pupils studying science in high school would some day become competent laboratory technicians, and is hardly credible that the scientists believed themselves to be so inarticulate that they had no other way of making known their discoveries than to demand that laymen should go through the motions of laboratory technique in the expectation of making adequate scientific discoveries for themselves. Possibly the dusky villain in this academic woodpile was our old friend, the disciplinary theory of education, for the report mentions the possibility of training the pupil's powers of observation, precision in measurement, and accuracy in recording data. Possibly these authorities believed that it would be easier to set up laboratory instruction in physics and chemistry than to obtain satisfactory textbooks in those subjects, for they stated definitely that textbooks are unsatisfactory sources of knowledge and that dependence upon them is of little or no value.⁶ Whatever their reasons, and in spite of their belief that in the laboratory "the great majority of pupils are sure to do bad work unless carefully guided,"⁷ these authorities gave to laboratory training prestige and momentum which have served to keep it going for many years.

A few years after this report appeared the Committee on College Entrance Requirements⁸ confirmed and restricted further its curriculum recommendations. Physical geography, biology (botany and zoology, or botany, or zoology), physics, and chemistry thus became the standard high-school offering in natural science. Thus instruction in

⁶ *Report of the Committee of Ten on Secondary School Studies.* New York: The American Book Co., 1894, p. 119.

⁷ *Ibid.*

⁸ "Report of the Committee on College Entrance Requirements." Washington: National Education Association, 1899. 188 p.

science became pretty well standardized and stereotyped. For many decades an increasingly large and heterogeneous secondary-school population was destined to receive science instruction devoted to a narrowly conceived college-preparatory function, heavily loaded with laboratory exercises and restricted to the detailed and technological study of a few highly specialized and disjointed courses. The situation was one to delight a college registrar. He need never be perplexed about the precise quantitative values of high-school science "credits." But ample futilities and miseries were being prepared for later generations of teachers and pupils.

The Commission on the Reorganization of Secondary Education. It was almost twenty years before some of these shackles began to be removed. Increasing resentment toward the suzerainty of the colleges and the general movement toward reorganization of secondary education both served to facilitate certain partial reforms. The science committee appointed by the Commission on the Reorganization of Secondary Education produced a report which suggested drastic changes in the general purposes and practices of science instruction.⁹ In general, the recommendations of this report represent sharp transitions from the recommendations of the Committee of Ten. In the first place, the college-preparatory function is elaborately neglected. Regardless of the pupil's subsequent studies, the high-school science course should be "firmly associated with the kinds of experiences that arise in common needs," it should deal with "common questions of everyday life," it should develop variety of interests and appreciations of the natural environment and of the labors and contributions involved in an age of science.¹⁰

In addition the report definitely repudiated the theory that the schematic organization and specialization in subject matter which are useful to scientists are therefore to be followed in the selection and organization of science courses for secondary-school pupils. On the contrary, the pupil is to be led to consider first questions of immediate interest to himself, "ideas which are significant to him by reason of his own experience and which concern his own life to such an extent that he perceives or is easily led to perceive their worthwhileness."¹¹ In order to break away from the tendency toward narrow specialization the

⁹ *Reorganization of Science in Secondary Schools*. U.S. Bureau of Education Bulletin, 1920, no. 26 62 p.

¹⁰ *Op. cit.*, p. 15

¹¹ *Op. cit.*, p. 16.

report vigorously advocated for the secondary school an introductory course which would represent the entire field of natural science. The promotion of this general science course has been facilitated by its grade placement at the junior high-school level, where innovations of all sorts are somewhat more cordially fostered than in the senior high school. Another encouraging condition has been the fact that the general science course could be introduced in many schools without directly displacing a well-established course, for the physical geography recommended by the Committee of Ten for the ninth grade was too feeble to offer much competition.

Emphasis on civic and domestic responsibilities. The general science course recommended in the report emphasizes civic and domestic responsibilities. For purpose of illustration the report mentions household heating systems, community water supply, and general sanitation. Either by intent or by accident, a further list of sample topics emphasizes physical science and gives relatively little weight to biological science. Specifically, these sample topics are: Combustion, water, the air and the weather, light and its benefits, work and energy, magnetism and electricity, and nature's balance of life. In connection with each of these topics it is recommended that emphasis be placed upon applications to the everyday environment in the home and in urban communities.¹² These suggestions, which are specifically stated to be illustrative, have apparently been interpreted by the authors of general science textbooks as definitive, for the courses in this field are chiefly concerned with the physical aspects of the general field of natural science and with mechanical utilities in the home and in the city. Biological science is apparently regarded as much less important. What is sometimes called "nature study" is conspicuously neglected. Apparently the life of forest and field and stream is less important than the facilities for community fire protection, water supply, and sewage disposal.

Emphasis on physical sciences. This tendency to neglect biological science is reflected in some degree in the recommendations concerning more advanced courses in science. The report pays its disrespects to the conventional attempt to present to high-school pupils diluted and specialized courses in biological sciences and to the emphasis upon morphology and classification and upon difficult and insignificant lab-

¹² *Op. cit.*, pp. 24-28.

oratory exercises. It suggests the desirability of offering a general biology course which presents to the layman biological concepts of cultural significance. But in indicating approved biology courses to be offered in the ninth or tenth grade, it says that "courses may consist of general biology, botany, or zoology." The suggestion long since made by the Committee of Ten is thus at least partially confirmed, and enough leeway is given so that traditional instruction in biology does not entirely lose caste. It is possible that general courses in biology would have been more vigorously promoted if, instead of these several optional courses, the report had forthrightly recommended a definite course in general biology.

The traditional emphasis upon physical science is perpetuated in the recommendation of the conventional offering of chemistry and physics as advanced courses. However, significant changes are reflected in the stipulations made with reference to instruction in these courses and their function in the school's program. Conventional instruction in these courses is severely criticized for its abstract necromantic quality, its remoteness from the phenomena and affairs of everyday life, its failure to reflect the needs of the layman (as distinguished from those of the productive technician), and its consequent lack of appeal for secondary-school pupils.¹³

It is proposed that primary emphasis be placed upon concrete realities and the applications of chemistry and physics. Such topics as these are listed for illustration: Glass, clay products, artificial stone, fertilizers, coal, petroleum, wood, explosives, paints, pigments, textile fibers, dyeing, cleansing agents, photography, food constituents, sugars, fats, proteins, beverages, fruit juices, poisons and common antidotes, leavening agents, matches, adhesives, inks, refuse disposal, preserving, metals. The report suggests also that extensive supplementary readings and excursions be added to the usual regimen of science instruction.

However, pupils are still expected to become competent in the solution of mathematical problems, in the use of symbolic equations, and other technical details which are traditional elements in these courses. This willingness to initiate new emphases, provided it does not displace anything, has resulted in very little actual change in the staple offerings in the physical sciences. Instruction in both physics and chemistry is

¹³ *Op. cit.*, pp. 36 ff.

still relatively abstract, theoretical, and remote from the interests and everyday concerns of boys and girls. It deals very largely with the kinds of facts and principles which have been accumulated through the years by advanced workers in physical-science laboratories. Such matters, although they are rather narrowly limited, are not without value to the relatively few secondary-school pupils who have already developed substantial interest in science, who have the exceptional talent needed to study them successfully, and whose prospects of going on to collegiate studies in physical science are fairly definite.

For the more typical boy or girl, however, these more or less esoteric studies are so rigorously formalized as to make it difficult to cope with them, even if there were common disposition to do it. But they are so far removed from the realities of their own lives that it is only the exceptional pupil who can develop much enthusiasm. It is therefore more appropriate than otherwise that these subjects are ordinarily offered as electives and that they are taken by relatively few youngsters.

The fact that so few boys and girls are interested in enrolling for this specialized instruction in science should not be interpreted to mean that they do not normally have considerable interest in knowing more about things which science courses might very properly present. Many of them have developed quite apart from their work in school absorbing interests in various aspects of the natural environment and in many of the things and services which are the outgrowth of scientific and technological development. In many instances individual boys and girls have become so intrigued with certain hobbies or specialties in this field as to have acquired an astonishing store of information through their own efforts.

These instances do not justify the school's neglect of its own responsibilities for developing breadth of interest and insight; interest and insight should not be left to accident. The fact that boys and girls often become interested in scientific hobbies of their own accord does suggest, however, that science instruction which is realistically adapted to the relative immaturity of boys and girls and is so planned as to increase their understanding of the world of living and inanimate things and of the ways in which men are continually developing new methods and materials for the satisfaction of human needs and the solution of human problems, may expect to have considerable success.

The method of science. Possibly one of the reasons for the persis-

tence of subject matter which has relatively little intrinsic appeal for most pupils is the supposition that the study of this subject matter affords training in scientific methods of thinking and encourages the development of scientific attitudes. Such a claim may reflect the specialist's recognition of the unsuitability of his standardized subject matter and his desire to find some way of justifying it for the layman. But, regardless of the motives which have inspired it, the claim is an attractive one. Any subject which can develop a favorable attitude toward the spirit and method of science and which may develop some degree of competence in the use of the method might be justified even if its subject matter were unsuitable. Unfortunately, there is no adequate evidence that science instruction does develop such attitudes or abilities. Examination of courses of study and the testimony of science teachers imply that the scientific method of thinking is not given very much attention in secondary-school teaching.¹⁴ Although the National Survey indicates that many courses of study specifically designate the ability to do scientific thinking as one of their major objectives, they do not ordinarily contain materials intended particularly to give effect to that purpose. Teachers who were asked how they attempted to develop this ability testified in some instances that it could not be done and in others that their efforts were more or less casual. Obviously the pupil who is made to carry on laboratory "experiments" or has frequent opportunity to observe his teacher doing much the same thing acquires some familiarity with some of the materials and elementary techniques of the science laboratory. In spite of the fact that these experiments and demonstrations are for the most part highly stereotyped, the very discerning pupil may be able to see somewhat dimly reflected in them the spirit and method of scientific inquiry. But they are at best a very meager exemplification of the function of scientific modes of thought as these modes of thought have operated in the development of our civilization. The esoteric mysteries of the laboratory were at one time an intriguing symbol of science in its infancy, but they by no means represent the broad range of human activities in which scientific method is today a controlling influence. Even if science instruction were very effective in developing scientific modes of thought in connection with the restricted concerns of the traditional laboratory, it could hardly

¹⁴ Wilbur L. Beauchamp, *Instruction in Science*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monographs, no. 22, pp. 39, 57.

be expected that the pupil would thus come to recognize the broad applicability of the method and spirit of science in the manifold concerns of modern life.

The limitations of the laboratory are similar to the limitations of the factual subject matter of most science courses, with the possible exception of the course in general science. Most of the courses are so narrowly confined to the abstract fundamentals and the detailed facts which are the elementary equipment of the prospective specialist that they do not bring the pupils into meaningful contact with the realities of the world. There is supposedly no objection to the attempt to make a pupil understand the so-called fundamental principles of physics, chemistry, or biology, provided he is able to master them, but they will be of little use to him unless he comes to understand and become interested also in the more particular and realistic matters to which they are fundamental. Unless what is supposedly an opportunity to develop scientific attitudes and scientific modes of thought is in actuality an opportunity for getting the increased understandings and interests which are in effect the substance and the controls of thought, it is to be expected that adherence to the method of science may be little more than blind devotion to an empty shibboleth. Such an outcome may be very useful to the not-too-scrupulous advertiser who finds that he can more easily sell almost anything by calling it "scientific," but it does not help the layman who favors science without having possession of the facts which science has made available.

Further changes needed. The teaching of natural science has undoubtedly been much influenced by the report of the Commission on Reorganization, but more potent catalysts are needed. The elements of instruction in science seem to be relatively inert. Even in the presence of heat the reaction proceeds slowly, without much tangible result other than the diffusion of some slightly unpleasant odors.

After he had studied in detail the curricula of representative and noteworthy secondary schools, Counts was impressed with the characteristic tendency of science courses to reflect the interests of the scientist and to neglect the needs of youthful laymen.

There is one rather severe criticism which may be applied to the entire science program in the high school with the exception of the course in general science. Most of the courses seem to lack human interest. The materials are organized about the interests of scientists rather than

about the interests of high-school boys and girls or of ordinary persons. . . . The object is to produce the scientist rather than the intelligent citizen. If science is to hold its place in the curriculum, this situation will have to be modified. The materials of instruction should be organized about those questions which men would like to have answered. Something could be learned today from the courses in natural history which were offered in the schools a couple of generations ago. These courses, though containing much that has been superseded by the advancements in science, manifested a human spirit which is lacking in the science program today¹⁵

Recent developments. Judged in terms of its actual performance during the past forty years science instruction scarcely inspires sanguine expectations. However, those who are interested in its educational potentialities cannot afford to overlook certain recent developments. It is significant that many authorities are examining critically the long-established practice of making so much ado about laboratory work. This matter has been the object of considerable investigation.¹⁶ At present the available evidence is somewhat conflicting (as experimental evidence in education seems very often to be, particularly when it is produced by investigators who can hardly avoid the necessity of grinding their own axes), but the mere fact that teachers of science are beginning to wonder whether pupils cannot be effectively taught without indulging in laboratory activities is a promising omen. At the same time much attention is being given to effective use of lecture-demonstrations and the use of projection equipment for visual instruction. It is apparent that teachers of science are beginning to suspect that a pupil can learn about science without undertaking to participate in, or at least to go through the motions of participating in, the tedious regimen of the scientific technologist. The critical examination of the status and values of laboratory training is but one of several promising trends which are epitomized in "A Program for Teaching Science."¹⁷ This noteworthy report confirms and strengthens the tendency to plan the instructional program in science as an integrated sequence continuing throughout the elementary and secondary school years. In order

¹⁵ George S. Counts: *The Senior High School Curriculum* Supplementary Educational Monographs, no. 29. Chicago: University of Chicago Press, 1926, pp. 75, 78

¹⁶ "Some Contributions of Educational Research to the Solution of Teaching Problems in the Science Laboratory." Chap. VII of "A Program for Teaching Science." Part I of the *Thirty-First Yearbook of the National Society for the Study of Education* Bloomington, Illinois: Public School Publishing Co., 1932, pp. 91-108

¹⁷ *Op cit*

to give actual substance and effect to this tendency, the report tentatively suggests certain fundamental concepts or principles of natural science toward which the detailed instruction at all grade levels is to contribute increased understanding and appreciation.¹⁸ Furthermore, it suggests that the basic content of particular courses be formulated in terms of broad generalizations. Although the generalizations suggested are not presumed to be entirely adequate, they are very much more definite than the so-called objectives which have been used heretofore not only in natural science but in other subjects. Furthermore, they not only permit the teacher to select illustrative materials for instruction, they actually demand that such selection be made.¹⁹

Consider, for example, these generalizations which are recommended for study during the first three weeks of the course in general biology in the high schools of New York:²⁰

Man's Place in a World of Living Things

I. Man is one species among millions of diverse species (3 weeks)

1. Man is one of millions of living organisms.
2. Man as an animal includes many types.
3. Man's progress in civilization has been gradual.
4. Man has always found it useful to classify plants and animals.
5. Scientific classification is based on structure.

Freedom from prescription with reference to the minutiae of courses has the advantage not only of stimulating the teacher to assemble illustrative materials for presentation to his pupils but also of readily permitting adaptation to local needs and opportunities. If it is feasible, as it seems to be, to formulate the entire high-school curriculum in natural science in terms of broad and definite subject-matter generalizations, the future of science instruction becomes more promising.

¹⁸ "A Program for Teaching Science," pp 53 ff.

¹⁹ Brief quotation from these stated principles necessarily distorts their nature and significance. The reader is urged to inspect some of the materials presented in the report. For example, chapters XI and XII suggest the general principles to be taught in the several grades of the elementary school. Unfortunately the principles to be taught in the senior high-school courses are not presented in similar detail. However, a very noteworthy example of the possibility of using principles or generalizations as bases of a high-school science course is the *Tentative Syllabus in General Biology*, issued at Albany by the New York State Education Department in 1932.

²⁰ This material is a portion of the first unit in the general biology course as it is presented in the *Tentative Syllabus in General Biology*. Albany: The University of the State of New York Press, 1932, p 11.

Important as these possibilities are, it is perhaps even more significant that this entire report reflects marked transitions in the fundamental viewpoints which determine the details of natural science instruction. No longer do authorities in this field make the fatal error of assuming that brief and partial samples of the specialized subject matter and technical training which are useful to scientists are suitable for the general education of youthful laymen. On the contrary, they positively insist that science instruction should put pupils in possession of insight and interest in those aspects of the physical world which are significant for humanity generally.

The basic viewpoints and the detailed recommendations embodied in this yearbook can scarcely be expected to be immediately incorporated in school practice, but it would be greatly to the advantage of secondary-school pupils if they could be. However, it seems very probable that the present trend of science instruction lies in the direction suggested by this "program for teaching science," and that this field of knowledge which holds unquestioned potentialities for liberal education is at last to produce some of the values which its friends have long claimed for it.

So effectively does the report indicate desirable next steps in the improvement of science instruction that suggestions concerning the problems which must be solved seem merely to repeat the major recommendations made in the yearbook of the National Society for the Study of Education. Perhaps they may be summarized briefly thus:

1. *The subject matter of courses in natural science should present as fully as possible the fundamental concepts and principles which enable men to appreciate and to control wisely the natural environment.* It is implied that the general approach to these principles will be that of the layman, not that of the technician or research worker. It is implied also that the program of instruction in natural science must be more comprehensive than it has been. If the curriculum is to present the concepts which support appreciation and wise control of the natural environment, its content must represent and correspond to the full scope of the natural environment.
2. *The natural science program in its entirety should be developed as a continuous sequence of instructional units offered at every grade level.* Presumably the very partial and specialized curriculum which has been offered in the past should be supplemented by materials drawn from other fields of natural science, so as to represent as comprehensively as possible the entire range of natural phenomena.

3. *The natural science program should in addition provide opportunities for individuals whose special interests and abilities are exceptional.* On the whole the conventional offerings in natural science have perhaps been more appropriate for such exceptional students than for others. It would be most unfortunate if, in the attempt to develop more suitable instruction for the more ordinary majority, there should be neglect of the exceptional minority. It need not be assumed, of course, that mere continuance of conventional courses is adequate provision for exceptional pupils. Efforts to develop better opportunities for boys and girls having special interests and abilities may be no less fruitful than attempts to provide instruction for the more ordinary majority.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Consider rather fully the probable reasons for the common use of the term "science" to designate studies of biological and physical phenomena.
2. Counts has suggested that contemporary instruction in natural science might be improved by incorporating in it some of the elements of the "natural history" instruction of bygone days. What was the character of "natural history"? What is the explanation of its decline as a school subject? What are the meritorious qualities to which Counts refers?
3. Examine and summarize recent evidence concerning the relative merits of individual laboratory training and lecture-demonstration.
4. Examine in detail the contents of several textbooks in biology, chemistry, or physics in the attempt to determine their relative emphasis upon facts and techniques which are appropriate chiefly as preparatory to the work of the scientific specialist or technician.
5. How do you account for the fact that some colleges which prefer that their students shall have had laboratory training in high school zealously develop for their own students orientation courses in natural science which are entirely without laboratory training?
6. Aside from the influence of authoritative committees, what are the probable reasons for the fact that biology has received less emphasis than has been given to physical science?
7. In one or more high schools examine the trends of enrollment in particular natural sciences over a period of years. Interpret your findings.
8. In this chapter it has been suggested that technical training in the laboratory is probably inappropriate as a required element in the education of young people who have little prospect of becoming scientific technologists. What is the probability that this technical training is not desirable, *at the secondary-school level*, even for those who will later become research workers in laboratories?

9. Select a representative group of persons who have studied natural science in secondary schools, and obtain from them expressions of their judgments concerning the aspects of natural science instruction which have been most valuable and least valuable to them.
10. Consider as concretely and definitely as possible the supposition that knowledge of natural science is, or is not, valuable or essential for the intelligent performance of an individual's civic responsibilities.
11. Assuming that most of the science instruction, in the advanced courses particularly, is hardly suitable for all pupils and that there should be developed a much more comprehensive sequence of science courses intended to meet the capacities of the majority of secondary-school pupils, develop tentative plans for such a sequence, attempting to make the plans as definite as possible and broadly inclusive of the experiences which will produce the desirable outcomes which are essential in the general education of the young citizen.
12. This chapter has alluded to "the method and spirit of science." Possibly you have only some more or less indefinite ideas about the meanings suggested by this phrase. If so, you may find it both interesting and profitable to try to find out what authorities on the subject have to say in explanation of it and to clarify and define more clearly your conceptions of it. Because there is considerable disagreement among experts, and because books on the subject differ in difficulty, perhaps the best way of getting at them is to ask the best librarian you know to suggest some books which you would find useful in beginning your study of the way scientists think and the way they work.

After you have determined fairly well what is meant by scientific method, examine a number of commonly used secondary-school science textbooks and laboratory manuals to find out in what ways they do or do not give the pupil a good opportunity to come to understand what scientific method is.

13. Even if natural science courses are the most suitable avenues in which the pupil may get his initiation into the scientific method of thought, his use of the method is likely to be made much more effective if he is encouraged and required to use it in other phases of his school work. This implies that teachers of other subjects must also have some concern for its development. Develop definite plans whereby the various departments of a secondary school may effectively increase the pupil's competence in scientific methods of thought and measure the success of their efforts.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY
OF SCIENCE IN THE SECONDARY SCHOOL*General*

Downing and Hunter are particularly useful for those who wish to get a good general orientation concerning the various aspects of science instruction. The little book by Cawthorne, whose style and viewpoint as an Englishman are refreshingly different from what is customary in the United States, is in no sense a complete introduction to the field of science teaching, but it illuminates some of its fundamental problems. The yearbook of the National Society is "required reading" for anyone who wishes to keep abreast of trends in the field of science instruction, although it may seem a bit dull to those who have not yet acquired strong professional interest in its problem. Both for those who wish merely to peruse them in order to get some notion of their general nature and scope, and for those who wish to locate studies which they will themselves explore more fully, the digests by Curtis are exceedingly useful. The brief summaries and bibliographies by Engelhart and by Powers in the *Review of Educational Research*, although they are less fully informative, are also valuable for the same purposes.

Cole, William: *The Teaching of Biology*. New York: D. Appleton-Century Co., 1934. 252 p.

Curtis, Francis D.: *Digest of Investigations in the Teaching of Science*. Two volumes. Philadelphia: P. Blakiston's Son and Co., 1926 and 1931. 341 and 424 p.

Downing, Elliott: *Introduction to the Teaching of Science*. Chicago: University of Chicago Press, 1934. 258 p.

Hunter, George W.: *Science Teaching at Junior and Senior High-School Levels*. New York: American Book Co., 1934. 552 p.

National Society for the Study of Education: "A Program for Teaching Science." *Thirty-First Yearbook*, Part I. Bloomington, Ill.: Public School Publishing Co., 1932. 370 p.

Powers, Samuel Ralph: "Science," *Review of Educational Research*, 4:473-78, 530-31 (December, 1934).

Special

The research studies by Efron and Kilander are somewhat more readable than most doctoral dissertations; they are recommended to anyone who is already more or less familiar with science teaching in the United States and who wishes to find out how it differs from that in other countries. The other special research studies here listed are fairly representative of the kinds of work which are being done by advanced students, and their titles are sufficiently indicative of their content. The study by Rulon probably merits

comment, for two reasons. It is an exceptionally good example of carefully developed experimentation, and it is useful to persons who are specially interested in visual education, even though they are not particularly interested in science.

Carpenter, W. W. *Certain Phases of the Administration of High School Chemistry* (Contributions to Education, no. 191.) New York: Teachers College, Columbia University, 1925. 74 p.

Dyer, John H. : *An Analysis of Certain Outcomes in the Teaching of Physics in Public High Schools with an Investigation Establishing Such Outcomes.* Philadelphia: Westbrook Publishing Co., 1927. 98 p.

Efron, Alexander. *The Teaching of Physical Sciences in the Secondary Schools of the United States, France, and Soviet Russia.* (Contributions to Education, no. 725.) New York: Teachers College, Columbia University, 1937. 296 p.

Horton, R. E. *Measurable Outcomes of Individual Laboratory Work in High-School Chemistry.* (Contributions to Education, no. 303.) New York: Teachers College, Columbia University, 1928. 105 p.

Hurd, A. W. : *Co-operative Experimentation in Materials and Methods in Secondary-School Physics.* New York: Teachers College, Columbia University, 1933. 60 p.

Kilander, Holger Frederick: *Science Education in the Secondary Schools of Sweden: A Comparative Study of Sweden and the United States.* (Contributions to Education, no. 463.) New York: Teachers College, Columbia University, 1931. 166 p.

Klopp, W. J.: *The Relative Merits of Three Methods of Teaching General Science in the High School.* Chicago: Central Association of Science and Mathematics Teachers, 1930. 82 p.

Rulon, P. J. : *The Sound Motion Picture in Science Teaching.* Harvard Studies in Education, vol. XX. Cambridge: Harvard University Press, 1933. 236 p.

SOCIAL STUDIES

THE miscellany of courses somewhat loosely called the social studies has achieved a notable rapid rise and expansion. Although some of these courses were introduced into secondary-school curricula early in the nineteenth century, it was not until the middle of that century that they became generally established in the academies. Since that time they have continued to expand and change, and during recent years there has been an increasing tendency, even among authorities not closely identified with the field, to assign to the social studies significance and values superior to those of any other field of secondary-school instruction. There is probably no other group of studies in which there is more lively ferment of progressive criticism and continual experimentation.

Complexity of the social studies. Undoubtedly both the late entrance of the social studies into the secondary-school program and the seething changes which are at the same time the glory and the embarrassment of these courses result naturally from the fact that the materials which this field embodies are difficult to manage scientifically. In man's long campaign of scientific or intellectual mastery he has found it relatively easy to observe, classify, and interpret objectively facts of an extra-human sort. For example, facts with reference to the natural boundaries of a territory appear to be simple, static, and impersonal, whereas the phenomena of national tariff barriers seem to be exceedingly complex, dynamic, and highly charged with conflicting human interests. We take pride in believing that man is distinctive for his superior ability to respond to and to control selectively a cultural environment which is characteristically complex and dynamic. Naturally, then, the systematic study of his living is correspondingly difficult. But to make matters even more difficult, the social studies are concerned not with the study of the human individual, a hard enough task in itself, but with the even more complex phenomena of the life of social groups. If one reflects for a moment upon the fluctu-

ating complexities and diversities of the phenomena implied by the term "social" he may be overwhelmed by both the impossibility and the urgent necessity of attempting to clarify the visions of youth concerning them. At any rate he will be interested in considering the means employed or advocated to meet this challenge, and will be, perhaps, disposed to be charitable in judging them.

Primitive qualities of history and geography. With these difficulties in mind it may not seem surprising that the subjects which have served as introductory, both in the sense that they were admitted early into the secondary-school program and that they are frequently the first social studies encountered by the pupil as he enters the school, are geography and history. In commenting on the "primitive character of early social studies," Judd² says:

History in its first form, that which was given to it by Herodotus, was scarcely more than a collection of narrative accounts of the customs and doings of various peoples. Gradually, one continuous thread appears in history and gives it a certain coherent character, that is, the thread of sequence. The mass of incidents brought together in the gossiping accounts collected by the narrator are arranged in order. . . . The purely temporal order of historical narrative is not a profound achievement of analytical thinking. . . . Temporal arrangement of ideas is a first step in preparation for a later coupling together of ideas under the categories of cause and effect and other more productive scientific categories which prepare the way for full understanding and control of social forces

Geography in its early form was even more primitive than was history. The order of facts in geography is at first purely spatial or locational. . . . The simplest forms of associative arrangements are those which we know as "space" and "time."

Obviously these statements have direct reference to the evolutionary development of history and geography as cultural arts and not as school subjects, but they serve partially to explain why instruction in these subjects has served as the advance guard of the social studies in the conquest of curricular recognition.

Influence of the American Historical Association. The establishment of history courses in the secondary-school program has been powerfully aided by the American Historical Association through the agency of special committees. Before the turn of the century the

² Charles Hubbard Judd *Psychology of Secondary Education*. Boston: Ginn & Co., 1927, pp 364-65

vigorous growth of the social studies had produced considerable variety in courses and curricula offered in the schools, and the "Committee of Seven" was appointed to make a critical survey of social-studies courses and curricula and to formulate college entrance requirements in history. Since the secondary schools of that day were so largely concerned with preparation for college such a step was tantamount to an attempt to dictate the curriculum of social-studies courses in the high schools. The attempt was successful, and curricula in many schools still reflect, in part at least, the recommendation that there be in the four-year high school a four-year sequence including the following courses: Ancient history, mediaeval and modern history, English history, and American history and civil government.² Within less than a decade, demand for more attention to the modern world produced another committee, the Committee of Five, and another report.³ But no great changes were recommended. Although minor changes in the content of particular courses and in their sequential arrangement were suggested, the curriculum continued to exhibit the rather natural biases of the American Historical Association.

Gradual replacement of history courses by other social studies. Three separate investigations⁴ of the status of the social studies during the nineteen-twenties showed that, although the historical studies were gradually losing ground and certain "modern" subjects were winning a place in the social-studies curriculum, the field of history retained its favored position. Mediaeval history and English history, which were normally offered in the middle grades of the high school, were declining rapidly. Ancient history, commonly offered in the ninth grade, had to compete with elementary civics courses in the larger schools; but in the small high schools particularly it was often the only social subject offered at this level, and for the considerable numbers of pupils who left school before reaching the twelfth grade it

² American Historical Association, Committee of Seven. *The Study of History in Schools*. New York: The Macmillan Co., 1898, pp. 34-35.

³ American Historical Association, Committee of Five. *The Study of History in Secondary Schools*. New York: The Macmillan Co., 1911.

⁴ Walter S. Monroe and I. O. Foster. *The Status of the Social Sciences in the High Schools of the North Central Association*. Bureau of Educational Research Bulletin no. 13. Urbana, Illinois: The University of Illinois, 1922. 38 p.

Edgar Dawson: "The History Inquiry," *Historical Outlook*, 15:239-71 (June, 1924).

George S. Counts: *The Senior High School Curriculum*. Supplementary Educational Monographs, no. 29. Chicago: University of Chicago Press, 1926. 160 p.

was commonly the only point of contact with the entire field of the social studies in the high school. The tendency to reduce the attention given to history was reflected, perhaps somewhat temporarily, in the offering in some schools of a one-year course in general history. Presumably the intent of this course was to present in brief compass the historical panorama which the historians had sought to establish as a four-year sequence. But much more important indications of the dissatisfaction with the traditional emphasis upon history were other subjects frequently offered. Although the civics course in the fourth year was commonly retained as an inheritance from the nineteenth century, a ninth-grade civics course had become very popular. The older civics course was concerned chiefly with the structure of the federal government; the newer one dealt with the local community and the privileges and duties of its individual members. Courses in economics and sociology were also being offered, although they were not generally available in the smaller schools⁵ and were not taken by large percentages of secondary-school pupils. Undoubtedly the grade placement of these newer subjects interfered with their popularization. Courses in economics and sociology were ordinarily offered in the fourth year together with American history, which was firmly established by tradition and graduation requirements.

Variety of content in social-studies courses. All of the authorities who investigated the status of the social studies in the decade following the World War were impressed with the variety of innovations found in the social-studies curricula in our more progressive school systems. This variety was most apparent in the detailed content of particular courses. For example, Counts⁶ reported that the courses in American history offered in different representative cities showed marked disagreements concerning the apportionment of time to different divisions of the subject. Although the average percentage of time devoted to the times and events prior to the making of the Constitution was 25, the percentages in different cities ranged from 0 to 38. There was, however, more uniformity in the amounts of time devoted to different phases of culture. In general, the courses in United States history were courses in American industry, government and politics, and mili-

⁵ Harry H. Moore *Status of Certain Social Studies in High Schools*. Bureau of Education Bulletin, 1922, no. 45 21 p

⁶ *Op. cit.*, pp. 84 ff

tary affairs. Such phases of our development as are implied by the terms family life, science and invention, the arts, recreational life, religion, education, and manners and customs were rather uniformly neglected. Counts found that there had been some tendency to broaden the topical content of history courses and to give increasing attention to recent events, but it was apparent that instruction in history failed lamentably to give secondary-school pupils a well-balanced understanding of the social aspects of American culture. This, it must be remembered, was true of the American history courses ordinarily offered, with economics and sociology, in the senior year of high school. The pupil who did not remain in school until graduation presumably was to get his understandings of social phenomena by studying the cultural antiquities of the Mediterranean basin, in the course in ancient history, or perchance by considering the local immediacies of fire protection, garbage disposal, or the pleasantries of municipal elections as euphemistically portrayed in a community civics course. In any case the pupil seemed likely to encounter somewhere in the social-studies courses some kind of information which had some connection with his social environment, which is probably more than could be said for some of the other instruction to which he was subjected. But even if the pupil enrolled for a social-studies course each year he would not have encountered either sequence, unity, or reasonable completeness in his studies, and if he took only one or two courses in this field, as he usually did, his deficiencies were aggravated.

Attempts to remedy the weaknesses of the social studies. It is to the credit of persons interested in the social studies that they attempted forthrightly to remedy these weaknesses. Their projects and proposals went in various directions. Some were more drastic than others, and there was considerable controversy concerning them, but they have served admirably to stimulate progress in the social studies and to arouse interest in these studies among educators generally. Undoubtedly one of the most important phases of this progress has been the work of Harold Rugg and his co-workers. Rugg favored a "radical reconstruction of the entire school curriculum," not "the mere refinement of existing subjects."⁷ He asserted that the content

⁷ See Harold Rugg: "Curriculum-Making: Points of Emphasis," chap. XI of "The Foundations of Curriculum-Making," Part II of the *Twenty-Sixth Yearbook* of the National Society for the Study of Education. Bloomington, Illinois: Public School Publishing Co., 1928, pp. 147-64.

of the curriculum must be constructed out of the very materials of American life, not from academic relics of Victorian precedents. He sought a "sane method by which useless subject matter can be discarded from the school curriculum and, instead, major problems, institutions, and modes of living that are of social importance utilized and taught in the lowest school grades commensurate with the mental abilities and experiences of children."

The actual technique advocated by Rugg involved the analysis of books written by "frontier thinkers" — persons who have extraordinary insight concerning the significance of contemporary social trends and dependable foresight with reference to the problems of the future. Actual use of this approach to reconstruction of social-studies curricula resulted in several very influential investigations,⁸ and Rugg has developed a series of textbooks which have been widely used.⁹

Fusion courses. In addition to the courses developed by Rugg, dissatisfaction with conventional courses in the social studies resulted in the production of other fusion courses, particularly in the junior high schools, where innovation was more hospitably received than in the senior schools. In most cases these courses were somewhat less systematically produced than those made by Rugg, and they differed considerably in detail. Although H. G. Wells has not been charged with responsibility for them, some of the fusion courses exhibit remarkable resemblances to his *Outline of History*. In general, the courses represent more or less successful attempts to synthesize for instructional purposes materials ordinarily classified separately in various fields of study.¹⁰

It was to be expected that while these innovations were being developed in some schools other schools would more complacently maintain traditional courses, with the result that social-studies instruction currently presents an ill-defined panorama of changing diversities.

Increased popularity of the social studies. In contrast with some other fields of instruction, in which attempts at reform and reconstruc-

⁸ For example, see J. A. Hockett *A Determination of the Major Social Problems of American Life*. Teachers College Contributions to Education, no. 281. New York: Teachers College, Columbia University, 1927. 101 p.

⁹ Howard E. Wilson and Bessie P. Erb: "A Survey of Social-Studies Courses in 301 Junior High Schools," *The School Review*, 39:497-507 (September, 1931).

¹⁰ For a thorough consideration of the values of fusion see Howard E. Wilson: *The Fusion of the Social Studies: A Critical Analysis*. Harvard Studies in Education, vol. XXI. Cambridge: Harvard University Press, 1933. 212 p.

tion seem to have been inspired by the necessity of strengthening defenses against waning popularity, the social studies have been continually renovated in the midst of increasing popularity. They seem to merit the advertiser's cheerful quip, "Such popularity must be deserved."

The National Survey of Secondary Education¹¹ indicates that secondary-school pupils are including in their studies increasing amounts of social studies. During the forty years prior to 1931 the graduates of six representative high schools had increased the average percentage of work taken in the social studies from 10.9 to 16.3. The percentages of work taken in all other academic fields, with the exception of English, had declined considerably during the same period. It is pertinent also that a study of the secondary-school and college subjects taken by the 1930 graduates of seven representative higher institutions shows that these students in general increased their attention to the social studies while they were in college.¹² In summarizing data from widely scattered school systems, the report of the National Survey shows that the typical high-school graduate has taken approximately 16.8 per cent of his work in the social studies,¹³ more than in any other academic field except English. The fact that enrollments in the social studies have not been forced by college entrance requirements to the same extent as in other subjects should also be considered. It is significant in this connection that the graduates of western high schools, in which traditional college entrance requirements are less influential, have taken more work in the social studies than has been taken by the graduates of representative eastern secondary schools.

Recent trends in the social studies. The contemporary status of social-studies curricula cannot be adequately described or evaluated in brief, general statements. Compared with other fields of instruction, social-studies curricula are so diverse and changeful that they evade accurate and complete description. However, there are certain trends which serve as highlights to suggest the essential features of the complete picture. Let us consider the evidence produced by several investigations of the status of the social studies.

The recent status of social-studies curricula in a large number of

¹¹ A. K. Loomis and others: *The Program of Studies*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 19, p. 246.

¹² *Ibid.*, pp. 257 ff.

¹³ *Ibid.*, pp. 218-19.

junior high schools in urban communities throughout the country is reported in a study by Wilson and Erb.¹⁴ In contrast with many investigations in which the names of courses are used as basic data, this investigation involved the analysis of the topical contents of specific courses of study. In spite of the many different titles used to designate junior high-school social-studies courses, it was found that they could be classified in ten relatively distinct subjects of study:

1. American history (entire field)
2. Early period of American history (to 1776, 1800, 1829, or 1865)
3. Later period of American history
4. European backgrounds of American life
5. Ancient history
6. World history
7. Geography
8. Civics — community and vocational
9. Harold Rugg's fusion course in social science
10. Local fusion courses

Geography as a social study. Only one of these subjects, geography, was offered in more than two-thirds of the junior high schools investigated. In the great majority of these instances geography was required for pupils in the seventh grade, although some schools offered it in the eighth grade and a few, in the ninth grade. Judging from the content of textbooks chiefly used, the investigators inferred that these geography courses were concerned largely with "human geography," "rather than with place and physical geography." However, they stress the possibility that "the natural-science aspects of geography are emphasized more widely than the survey leads one to believe."¹⁵

Civics in the social-studies program. Civics ranked second in frequency. It was offered in slightly more than one-half of the junior high schools, ordinarily as a required subject, and predominantly in the ninth grade. It is rather difficult to know definitely what content is included under this title. Wilson and Erb combine community and vocational civics in a single classification. The National Survey, reporting the numbers of junior high schools offering specific courses, uses three separate classifications, civics, vocations, and community civics.¹⁶ Apparently there is considerable agreement that some sort of civics course should be offered in the junior high school, and much disagree-

¹⁴ Howard E. Wilson and Bessie P. Erb: *Op. cit.*

¹⁵ *Ibid.*, p. 505

¹⁶ A. K. Loomis and others: *Op. cit.*, p. 39.

ment or uncertainty about what should be in it. Perhaps this confusion is to be expected and may be condoned because the elementary civics course is relatively new. However, in view of the fact that civics is commonly a required subject, one may reasonably wonder why all the adolescents who happen to live in one school district need to study vocational civics, while all those living in another school district need to know about community civics, and those in still another locality need just plain civics. But such discrepancies seem relatively unimportant when it is observed that a course in ancient history is presumed to be a necessity in one school, while another school neglects it entirely and requires all pupils to study American history.

American history. The survey by Wilson and Erb showed that American history holds an important place in junior high-school curricula. Approximately one-third of the schools offered it as a one-year subject, usually in the eighth grade and required of all pupils; more often it was divided into two years' work. The survey showed also that courses in the early period of American history are more frequently offered than those in the later period. One wonders whether this indicates a preference on the part of history teachers for the antique. It is to be hoped that there is some better excuse available, even if it is not apparent.

Persons who have criticized history instruction for its selective emphasis upon wars, politics, dynasties, and chronology for the sake of chronology should be somewhat comforted by the report that these American history courses are different. "It is significant that the outlines for practically all the courses in American history, no matter in what grade they are offered nor how much time is allotted to them, emphasize social and industrial history, organized interpretively, rather than political history, organized chronologically."¹⁷

Decline of ancient history. Ancient history still persists, but feebly. It was offered in approximately one-sixth of these junior high schools, many of which designated it as an elective subject. This decline in prestige is confirmed by the National Survey.¹⁸ However, it must be borne in mind that the junior high schools represented in both of these studies are more representative of the trends of educational change than of the conventional practices in the schools in hamlet, town and

¹⁷ Howard E. Wilson and Bessie P. Erb: *Op. cit.*, p. 504.

¹⁸ William G. Kimmel: *Instruction in the Social Studies*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 21, p. 13.

city throughout the country. Particularly in the eastern states and in small rural communities the course in ancient history still retains a substantial though diminishing place in secondary-school curricula.

World history. History as such is further represented in junior high-school curricula by courses in world history. Both of the surveys show that this subject has about the same frequency of occurrence as ancient history. However, it seems certain that world history is not commonly offered in the rank and file of junior high schools, and that its popularity is due to its being offered in a few cities which have many junior high schools. Its reasons for existence and its future promise are interesting points to consider. No doubt the fact is recognized that the history courses taken by most pupils do not provide anything like balanced perspective of the historical sequence of human progress. Possibly there is also the notion that, if the pupil is to give substantial amounts of time to the study of the social phenomena of the contemporary world, he cannot feasibly devote much time to the study of the past. On the other hand, it seems obvious that a one-year course does not permit more than a very sketchy and superficial treatment of the subject. Possibly this course is significant as a transitional omen, presaging the gradual disappearance of chronologically organized social-studies materials. This might seem to be a bold and ill-founded guess were it not for the fact that a very considerable amount of research and empirical groping in the schools shows a widespread willingness to depart from a historical approach and to effect new syntheses of knowledge for social-studies instruction.

Increasing emphasis on fusion courses. The influence of Harold Rugg has been mentioned heretofore. The investigation by Wilson and Erb shows that his fusion course is used in many junior high schools, and particularly in the western cities, where new departures of all sorts seem to be fostered by the educational climate. And the Rugg fusion course is by no means alone in its field. Many local schools have set about in one way or another to construct their own fusion courses.

Variety and instability of fusion courses. These junior high-school fusion courses exhibit marked individual differentiation, and many of them are continually being changed.²⁹ Not only do they differ con-

²⁹ William G. Kimmel: *Op. cit.*, pp. 20 ff. Presents a brief description of several typical fusion courses.

Howard E. Wilson. *The Fusion of the Social Studies: A Critical Analysis* Harvard Studies in Education, vol. XXI. Cambridge: Harvard University Press, 1933, *passim*.

siderably with reference to the fields of knowledge contained in them but also in the degree to which these several fields of knowledge are integrated. For example, some fusion courses are little more than disjointed collections of unrelated segments of geography and history, or history and civics. Other courses are composed of "problems" in which facts from many conventional fields of knowledge are introduced where they seem to be pertinent. Whether these fusion courses represent a trend which should be developed further is now uncertain. Perhaps their chief significance is that they represent a widespread and strong desire to break away from the emphasis upon the historical studies which have dominated social-studies curricula for many years.

Development in the senior high school. Social-studies curricula in the senior high school have somewhat more persistently withstood demands for change, and such changes as have been made have usually involved minor accretions rather than fundamental reorganization of subject matter. For example, Van Dyke²⁰ reports that, in representative high schools in middle-western states, the percentage of increase in the number of social-studies courses ordinarily offered during the period from 1906 to 1930 was larger than that for any other academic subject, and he shows that the typical offering may be described in terms of the recommendations of the Committee of Seven, supplemented by courses in economics and sociology. It is apparent, however, that English history is offered infrequently and that mediaeval history has waned almost as rapidly. American history, economics, and modern history are very commonly offered, and ancient history, civics, and sociology stand about midway in the rank of frequencies. It is significant that in the senior high school, as in the junior high school, the modification of the social-studies curriculum involves departures from the historical basis of organization. If the grade placement of these subjects were ignored the senior high-school curriculum might seem to be reasonably well balanced. However, it must be recognized that economics and sociology particularly are ordinarily offered along with a required course in American history in the senior year. This has the practical effect of preventing large numbers of pupils from getting anything more than history courses.

²⁰ George E. Van Dyke: "Trends in the Development of the High School Offering," *The School Review*, 39:737-47 (December, 1931). This investigation by Van Dyke is reported also as a part of the National Survey. See A. K. Loomis and others: *Op. cit.*, pp. 157 ff

Somewhat in contrast with these data are the situations reported by Kimmel²¹ concerning the frequency and grade placement of social-studies courses offered in senior high schools in 43 selected cities. It is fair to assume that these high schools are in general somewhat more progressive than the typical majority. Twenty-seven different types of courses are offered, although only those mentioned by Van Dyke are given in many schools — with one notable exception. Slightly more than one-half of these schools offer a course in "world history or civilization" in the tenth grade. American history is as usual a universal offering. Although it may appear in any of the three years of these senior high schools, they very frequently place it in the eleventh grade, making it easier for pupils to take some of the other courses which are offered in considerable variety in the twelfth grade.

The situation with respect to these twelfth-grade courses is somewhat like that of the ninth-grade courses in the junior high school. The courses available to the pupil depend upon the school district in which he happens to live, particularly if he happens to be living in California. In fact, twenty-three of the twenty-seven courses listed by Kimmel are offered in the twelfth grade by one or more schools.

Some important weaknesses. Social-studies curricula in general seem to be most commonly characterized by their variety, partiality, and discontinuity. Perhaps these are not the matters about which social-studies teachers are most concerned, but they are strikingly apparent to the disinterested onlooker. If all courses listed in all schools were combined and if matters were so arranged that a secondary-school pupil would take all of them, they might seem to provide a fairly well-balanced representation of their field. However, the programs offered in certain schools, and particularly the courses actually taken by individual pupils, provide little more than fragmentary and ill-assorted samples from the broad fields of social facts which might be presented to young people. For example, one pupil may have studied ancient history, American history, and American government; another may have been educated through the study of world history, American history, and sociology; while a third may have been acquiring an understanding of social phenomena by limiting his attentions solely to American history. Unless we assume that knowledge of social facts is not essential — merely a pleasant accomplishment depending upon the

²¹ William G. Kimmel: *Op. cit.*, p. 18.

whims of the pupil, or perchance the special bias of his teacher — it is difficult to see how so much diversity and inconsistency is justified.

Probably very few authorities would attempt to justify this diversity as a permanent situation, but there may be good reason to commend it as representing a widespread and energetic effort to get away from and improve upon the kind of curricula which seemed so satisfactory to the Committee of Seven. Rather than being disturbed by these transitional and presumably temporary inconsistencies we should perhaps be encouraged. The general tendency to make social-studies curricula more broadly inclusive of various fields of social fact seems commendable. It seems meritorious also to focus the attention of pupils chiefly upon the present world, rather than upon the remote past. Further reason for optimism is the willingness of authorities in the field to develop to the point of practical usefulness promising procedures for the thorough reconstruction of secondary-school curricula.

Report of the commission on the social studies. During the years in which these diversities grew rapidly a commission of the American Historical Association undertook an exceptionally full investigation of the status and the prospects of current instruction in the social studies. Departing somewhat from the precedents established by earlier committees, this commission has considered not merely matters closely concerned with the purposes, materials, and academic procedures of social-studies instruction. Its reports deal also with the details of contemporary social trends and educational policy in general. Perhaps for these reasons the commission found it difficult to present concisely definite recommendations for the direction of instruction in the social studies. Possibly personal disagreements among the members of the commission fostered the presentation of conclusions and recommendations which are somewhat vague.²² Possibly the investigation disclosed such great diversities in educational practice as to prevent anyone from arriving at dependable constructive proposals. At any rate the findings of this commission do not offer a concrete or ready-made program which secondary schools are expected to adopt.²³ Those who resent the powerful influence of previous commissions in fixing the character of social-studies curricula will undoubtedly approve of the

²² Four of the sixteen members of the commission declined to sign the summary report.

²³ American Historical Association, *Commission on the Social Studies in the Schools: Conclusions and Recommendations of the Commission*. New York: Charles Scribner's Sons, 1934. 168 p.

very general character of this report, although many educational practitioners would surely welcome some clearer mandate to direct them.

Not until school folk have become more widely familiar with the materials presented by this commission and have attempted to apply them to the realities of school practice will it be possible to estimate their full importance. However, these reports in their entirety are a rich source of factual information concerning the character of contemporary social-studies instruction, its historical development, and the interpretations and general conceptions of noteworthy leaders. Significantly, these reports imply that educational problems cannot satisfactorily be solved by the presentation of pat answers to highly complex questions.

Evidence from the Regents' Inquiry. Wilson's incisive report of the study of social-studies instruction which he made under the auspices of the Regents' Inquiry exhibits both the kinds of social competence with which young people are equipped when they leave school and the relationships of that competence to the educational programs in the schools.⁴ This study demonstrates that, although the young people of New York are in general at least as well educated as those in the rest of the nation, there are striking differences in the quality of their civic information and social attitudes when different communities and different schools are compared. The youngsters in the Empire State seem to have been reasonably well prepared to meet the standards of academic attainment ordinarily imposed by school authorities. However, when their information and attitudes are measured in terms of their readiness for intelligent handling of the responsibilities of out-of-school citizenship, their preparation seems much less adequate. Their knowledge concerning significant characteristics of their own local communities is strikingly deficient. Although they are familiar both with the superficial facts of the news headlines and with the skeletal anatomy of government as it is taught in the schools, they have no firm grasp of the fundamental problems, principles, and issues inherent in our national life. Moreover, their attitudes, interests, and habits are not such as to indicate that they will ordinarily take effective steps to increase their civic competence after they leave school. This Regents' Inquiry study is both encouraging and challenging. It demonstrates

⁴ Howard E. Wilson *Education for Citizenship*. The Regents' Inquiry New York: McGraw-Hill Book Co., 1938 272 p

that the character of a school's educational program does result in very definite and tangible changes in young people and that the programs in most schools can feasibly be greatly strengthened.

Transitional character of contemporary social studies. The presence of many problems and perplexities suggests that the social-studies curriculum is, and perhaps should continue to be, unfinished business. For example, since American youth exhibits an increasing tendency to remain in school, there is greater need for unity, continuity, and general internal consistency in the content of the social-studies courses which are to make up the sequence of basic courses. In this connection there must be some sort of intelligent decision concerning the educational values of the subject matter which we ordinarily designate as history and the fields of knowledge which we identify as the social sciences. Furthermore — and this is a matter which urgently demands much more intelligent study than has heretofore been given to it — all of these matters must be interpreted in relation to the heterogeneity of secondary-school pupils. Obviously the relative potentialities of courses in ancient history, community civics, American history, or economics cannot adequately be considered except as we take into account the marked differences in the ability of pupils to acquire and use different kinds and amounts of knowledge and in their subsequent occasions for applying what they may have acquired.

Future possibilities. Presumably the development of the social studies has not yet reached the stage where it is desirable to expect uniformity in the details of curriculum content in the majority of secondary schools. Indeed to some the present situation may appear so unsettled as to nullify any attempt to suggest general principles whereby further trends may be guided. However, at the risk of assuming too much definiteness and unwarranted boldness, certain specific suggestions are here presented for consideration. Although they are decidedly tentative and subject to implied qualification and empirical testing, they are stated positively for the sake of brevity and emphasis.

1. *Ideally social-studies curricula should present to every secondary-school pupil a complete and balanced representation of the social aspects of the world which is his effective environment.*
2. *Actually the scope and amount of these facts is so great as to demand that there be careful selection of the subject matter to be included in social-studies cur-*

ricula. Presumably this selection may best be based upon thoroughgoing analysis of the fields of knowledge which we conventionally designate as social, not upon sketchy rearrangements of existing curricula.

- 3. Presumably the arrangement of social-studies curricula should be such as to emphasize consideration of social facts relative to the immediate and present world. To state the matter somewhat differently, the amount of emphasis given to any particular fact should in general be proportionate to its proximity both in time and in space*
- 4. In the adjustment of curriculum materials to meet the capacities and needs of pupils of varying abilities this principle of emphasis may be applied with the result that, although all pupils will attain some insight concerning the social environment which they have in common, the less able pupil will be predominantly concerned with present-day affairs in his own geographic vicinity and the pupil of superior ability will be concerned not only with the immediate present in his own country but also with the more remote past and with the world at large.*

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Has the content of textbooks and courses of study in the social studies been influenced by "pressure groups" outside the school more or less than that of other subjects of study? What is the explanation?
2. Is preparation for citizenship in any way a function peculiar to the social studies?
3. It is axiomatic that young people in our schools should understand the nature and ideals of democratic government. Is it also desirable that they should understand the nature and ideals of communistic and fascist government? Upon what grounds?
4. Analyze and evaluate the "conclusions and recommendations" of the American Historical Association's Commission on the Social Studies.
5. Social-studies instruction is sometimes criticized for presenting an unduly favorable description of contemporary civic affairs. Analyze the content of several textbooks in community civics or economics in order to test the merit of this criticism.
6. In many school systems it is generally understood that teachers in the public schools are not to participate actively in politics. At the same time teachers are often censured for their cloistered lives and their failure to exercise aggressive leadership in community affairs. What should be expected of teachers of the social studies?
7. State concisely the outstanding strengths and weaknesses of contemporary instruction in the social studies.
8. In the case of a ninth-grade pupil of average ability, which represents the

more useful investment of a year's time, a course in ancient and mediæval history or a course in community civics? Substantiate your judgment.

- 9 Which is the more valuable investment of school money, a standard voting machine to be used by pupils in conducting school elections or library books dealing with social subjects?
10. Prepare an outline showing the content and organization of a basic sequence of social-studies courses for a four- or six-year high school.
- 11 For a number of years the field of the social studies has been notable for the variety of new trends and departures from convention. Merely to keep up-to-date concerning these trends is somewhat difficult, although it is profitable for any educator who wishes to take advantage of the experience and ideas of other people. Analyze recent educational periodicals and other publications dealing with social-studies instruction, and summarize the trends which you discover.
- 12 Assuming that a young person's reading habits should contribute to his increasing knowledge of important social problems which are necessarily the concern of all citizens, make a systematic and objective analysis of the content of periodicals in order to select those which deal with the facts and problems in which a high-school senior should be developing substantial and persisting interest. If possible, use some systematically developed classification of major problems (e.g., Hockett's statement of the "major social problems in American life") as a basis for examination of the content of these periodicals.
- 13 As you doubtless remember, it was the task of the pedagogue in Athens to take his master's young son about the city, helping him to see and to understand the diverse aspects of the life of the community. There is increasing tendency now to have pupils leave the school building to get at first hand contacts with things and activities which they would otherwise have to learn about only through indirect sources. For the most part these excursions are infrequent and casual. Assuming that this first-hand observation is a valuable element in a youngster's education in the social studies, examine in detail the content of one of the courses in the social-studies curriculum and explore the possibilities of having pupils make direct observation of pertinent conditions in their own community a regular part of their study of the topics and problems in the course.
14. Having in mind the potential values of using the life of the school itself as a laboratory and training ground in citizenship, make a systematic appraisal of various elements in social-studies instruction in order to determine in what ways and to what extent it would be profitable to encourage pupils to establish vital connections between what they study in social-studies courses and what they do in their formal government and their informal group relationships in school.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF THE SOCIAL STUDIES IN THE SECONDARY SCHOOL

General

Regardless of his field of special interest, the student of secondary education is likely to find many books on the social studies which are useful and easy to read. Merriam's *Civic Education in the United States* provides an excellent "over-view" of nationwide practice. Beard's "Charter" establishes definitively a justification and foundation for the development of social-studies instruction, and his book on the nature of the social sciences serves an important need in clarifying the relationships of the social studies to other fields of study and the distinctive characteristics of social studies, as such. Tryon presents an exhaustive compilation of facts concerning the details of instruction in the social studies. Kimmel's National Survey report is comparatively brief and condensed, and provides some information concerning general trends in practice in representative secondary schools. Although it deals directly with social-studies instruction and civic education in the schools of New York State, Wilson's study merits the careful attention not only of all teachers of the social studies, but of all persons seriously interested in the welfare of our secondary schools.

There are a good many textbooks intended for teachers of the social studies, and new ones are published frequently. Those by Bining and Bining, Dawson and others, Amanda Johnson, and Swindler are representative. Most of these books contain a wealth of bibliographical citations to other materials. Those who wish to use additional summaries and bibliographies will do well to refer to the publications by Rugg and Wesley, and the summaries and bibliographies by Knudsen and by Monroe in the *Review of Educational Research*.

Beard, Charles A.: *A Charter for the Social Sciences in the Schools*. Part I: Report of the Commission on the Social Studies, the American Historical Association. New York: Charles Scribner's Sons, 1932. 122 p.

—: *The Nature of the Social Sciences in Relation to Objectives of Instruction*. Part VII: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 236 p.

Bining, Arthur C., and Bining, David H.: *Teaching the Social Studies in Secondary Schools*. New York: McGraw-Hill Book Co., 1935. 417 p.

Dawson, Edgar, and others: *Teaching the Social Studies*. New York: The Macmillan Co., 1927. 405 p.

Johnson, Amanda: *The Teaching of History and Citizenship in Grades and in Junior High School*. Madison, Wisconsin: Parker Co., 1932. 240 p.

Kimmel, William G.: *Instruction in the Social Studies*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 21.

Knudsen, Charles W.: "Social Studies," *Review of Educational Research*, 4: 462-65, 524-25 (December, 1934).

- Merriam, Charles E.: *Civic Education in the United States*. Part VI: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 196 p.
- Monroe, Walter S.: "Social Studies," *Review of Educational Research*, 2: 43-46, 88-89 (February, 1932).
- Rugg, Earle U., and Dearborn, N. H.: *Studies in the Social Sciences and Citizenship*. Greeley. Colorado State Teachers College, 1928. 162 p.
- "The Social Studies Curriculum" *Fourteenth Yearbook* of the Department of Superintendence of the National Education Association, 1936. 478 p.
- Swindler, Robert E.: *Social Studies Instruction in the Secondary Schools*. New York: Prentice-Hall Co., 1933. 348 p.
- Tryon, Rolla M.: *The Social Sciences as School Subjects*. Part XI: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 541 p.
- Wesley, Edgar Bruce. *Bibliographies for Teachers of the Social Studies*. Philadelphia: McKinley Publishing Co., 1932. 28 p.
- Wilson, Howard E.: *Education for Citizenship*. The Regents' Inquiry. New York: McGraw-Hill Book Co., 1938. 272 p.

Special

For the most part, the special studies in this field are likely to be easy reading, at least as compared with special studies in other fields, and most of the books listed below might well be recommended to the general reader. The book by Johnson is particularly recommended to those who will be not too much pained to see that many of our modern innovations are recurrences of older efforts. Bowman's treatment of geography will interest those who suspect that geography may merit more attention in secondary schools. The book by Hadley deals with education at the college level, and not with the secondary school. The undergraduate reader may wish to consider it in relation to his own current educational experience. The book by Lambert is not directly concerned with problems of education or pedagogy, but with the nature of history, as such. Perhaps the reader should be warned that, unless he happens to have exceptional competence in the field of educational measurement, some parts of the book by Kelley and Krey will be difficult, if not completely incomprehensible. Presumably, the other special studies are pretty well characterized by their titles.

- Bagley, William C., and Alexander, Thomas: *The Teacher of the Social Studies*. Part XIV: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1937. 328 p.
- Baldwin, James W.: *The Social Studies Laboratory*. (Contributions to Education, no. 371.) New York: Teachers College, Columbia University, 1929. 98 p.

- Billings, Neal: *A Determination of Generalizations Basic to the Social Studies Curriculum*. Baltimore: Warwick and York, Inc., 1929. 289 p.
- Bowman, Isaiah, and others: *Geography in Relation to the Social Sciences*. Part V. Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 227 p.
- Hadley, Arthur T.: *Education and Government*. London: Oxford University Press, 1934. 210 p.
- Johnson, Henry: *An Introduction to the History of the Social Sciences in the Schools*. Part II of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1932. 145 p.
- Kelley, Truman C., and Krey, A. C.: *Tests and Measurements in the Social Studies*. Part IV. Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1934. 635 p.
- Lambert, Sir Henry C.: *The Nature of History*. London: Oxford University Press, 1933. 94 p.
- Marshall, Leon C., and Goetz, Rachel M.: *Curriculum-Making in the Social Studies*. Part XIII: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1936. 252 p.
- Merriam, Charles E.: *The Making of Citizens: A Comparative Study*. Chicago: University of Chicago Press, 1931. 372 p.
- Monroe, Walter S., and Foster, I. O.: *The Status of the Social Sciences in the High Schools of the North Central Association*. University of Illinois Bulletin, vol. XX, no. 18. Educational Research Bulletin no. 13. Urbana: University of Illinois, 1922. 38 p.
- Osburn, Worth J.: *Are We Making Good at Teaching History?* Bloomington, Ill.: Public School Publishing Co., 1926. 130 p.
- Peters, Charles Clinton: *Objectives and Procedures in Civic Education*. New York: Longmans, Green & Co., 1930. 302 p.
- Pierce, Bessie Louise: *Citizens' Organizations and the Civic Training of Youth*. Part III: Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons, 1933. 428 p.
- : *Civic Attitudes in American School Textbooks*. Chicago: University of Chicago Press, 1930. 297 p.
- Rice, Stuart A. (Editor): *Methods in Social Science*. Chicago: University of Chicago Press, 1931. 822 p.
- Wilson, Howard E.: *The Fusion of the Social Studies in Junior High Schools: A Critical Analysis*. Harvard Studies in Education, vol. XXI. Cambridge: Harvard University Press, 1933. 212 p.

VOCATIONAL EDUCATION AND PRACTICAL ARTS

THE American secondary school traditionally stands aloof from the ordinary occupations of men. With certain minor exceptions, particularly in the nineteenth-century academy, it has not wholeheartedly tried to develop in its pupils either the practical abilities which are useful in the shop, the home, the office, in the market place or on the farm, or the insights and interests which provide intelligent direction of their activities. It has usually been assumed that through some sort of psychological necromancy whatever sort of academic training the school happens to offer will enable the individual to cope competently with these matters, just as it has been supposed that this training will beneficially influence his character, his mind, his conduct, his citizenship, his health, his bank account, his candidacy for admission to college, and his happiness in general.

Although many schools have been completely academic and although almost all of them have been preponderantly concerned with academic subjects, minor attention to vocational training of some sort has long been traditional. For many decades certain secondary schools have included in their curricular programs a few subjects which were specifically intended to be practically useful. Some of them have indeed been definitely planned to aid some pupils subsequently to earn a living. Even before the founding of the republic, secondary schools sometimes provided for boys rather practical training in bookkeeping, penmanship, and the arithmetic needed by bookkeepers and merchants. The simpler elements of trigonometry and surveying were later provided for the needs of those who would locate new lands on the receding frontier. In schools along the seaboard astronomy and navigation were offered to young men who hoped soon to be the masters of China clippers. With the invention of the typewriter, training in typing and stenography were popularized by proprietary schools, and later adopted by the public high schools. For

the young ladies who were welcomed by the academy practical training seemed scarcely appropriate, and they were encouraged to develop a not too sedulous proficiency in such personal embellishments as embroidery and elocution. On rare occasions philanthropic individuals sought to provide for boys and girls of modest promise training of a very practical sort in the hope that they would become properly self-supporting and law-abiding citizens; certain schools thus provided sewing and cooking for the girls and some sort of handwork for the boys. Except for instances such as these, the program of the typical American secondary school was until well after the turn of the century narrowly bookish and academic.

This meager attention to practical training, unfortunate as it may appear from a present-day viewpoint, was directly influenced by important social factors. The conditions of life outside the school were such that there was neither necessity nor opportunity for the school to make much provision of education for the practical affairs of everyday life. Normal domestic and community economy were direct and simple. When large families were the general rule boys and girls had to share in the common labors and responsibilities of home and village life. Occupations of all sorts were relatively stable, rudimentary, and unspecialized so that young people were easily and gradually inducted into the normal activities of adulthood. Their intimate participation in essential everyday duties of the family and neighborhood inevitably developed the abilities which adult life required. Their close association with the various activities of their neighbors provided ample opportunity for appreciative understanding of the activities of other persons whose work was perhaps different from their own. Any school which might have sought in these circumstances to train pupils in the activities of their later callings or to instruct them in the significance of the vocations of their fellows would have been carrying coal to Newcastle. Furthermore, even if the schools had somewhat unnecessarily offered this training, it would have had no takers. The boys and girls who might conceivably have chosen it were not in school. There was plenty of work to be done. It was the kind of work which they could do. They were doing it.

These relatively simple and stable environmental conditions which provided so many opportunities outside the school were characteristic of the self-sustaining village or rural community. As long as our popu-

lation continued to be predominantly rural and until industrial specialization and centralization had grown considerably vocational education in schools was relatively unimportant. Early in the nineteenth century a few schools in the larger cities on the eastern seaboard began to provide a few courses intended to provide direct preparation for vocations. Gradually changing conditions in the more populous sections of the country were actually producing some need for vocational education before the turn of the century, but the glamorous and somewhat primitive opportunities of the expanding frontier distracted attention from it.

A marked increase in the need for vocational and practical training, and in the effort on the part of the secondary schools to provide it, was an inevitable result of changing social conditions. The Smith-Hughes Act of 1917, which provided Federal subsidies for the promotion of vocational education in co-operation with the States and which is frequently cited as the major stimulus for the development of practical work in the schools, was in itself a symptom and a result of these social changes. The relatively simple and stable social economy of American life was no longer predominantly rural and agricultural. The growth of cities, the increase in national wealth, the increasing scope and complexity of the industrial system, the increasing proportion of adults in the general population, and the rapid exploitation of rich natural resources produced a need for practical training and helped to make it possible. No longer did the normal home environment of a boy or girl provide ample opportunities for participation in the practical activities with which he would continue to be concerned as he grew to adulthood. No longer were the various occupations of men so few in number and so readily observable that young people could hardly escape knowing them as customary elements in community life. Specialization and large-scale production both in personal services and in the making of commodities, together with more convenient means of transportation, caused the complete disappearance of many of the characteristic activities of the home and the local community. These conditions also resulted in the development of different standards of personal competence and workmanship in specialized occupations. In short, young people no longer found readily accessible the means by which they could develop the abilities and insights needed for competent participation in adult occupations, and the difficulties of gaining admission to vocational life had been increased.

Changing social conditions not only produced a need for a more practical emphasis in education, but also fostered circumstances which encouraged efforts to provide it. Partly for humanitarian reasons and partly because the employment of boys and girls is in some respects disadvantageous to employed adults, there have been increasing legal restrictions upon the employment of young people in wage-earning occupations and mandatory requirements of school attendance. During recent years opportunities for employment of young people have been so meager as to make restrictions on their employment and requirements of school attendance somewhat redundant.

In addition to these social changes, which are obviously sufficient to stimulate educational emphasis on the practical arts and occupational activities of contemporary life, certain correlative trends in pedagogical theory have been influential. The gradual decline of belief in the efficacy of formal discipline, the tendency to advocate direct values, functionalism, and specific training, and the disparagement of the conventional academic school subjects have influenced educators to take interest in something practical. Perhaps much more potent than these theoretical considerations is the fact that for large numbers of boys and girls who now attend secondary schools the customary program simply fails to work. Educators are often influenced to introduce practical training in their schools perhaps not so much by its clearly discerned merits as by the unmistakable deficiencies in existing programs. Practical and theoretical considerations alike have led increasing numbers of schools to direct at least certain parts of their programs toward education for the practical affairs of life, and to provide some sort of preparation for vocational activities in particular.

Present status of vocational education in secondary schools. It is important to remember that much of the vocational preparation which the secondary schools now attempt to provide is still relatively new. Little of it has been in common use for more than a generation, and much of it came into rather general use no longer ago than the years between 1920 and 1930. It is therefore natural that the vocational work offered should exhibit considerable change and diversity. In general, the secondary-school vocational offering is limited to a few courses in one or more of four major categories — commerce or business, agriculture, industrial arts, and home economics. Very few schools offer substantial amounts of work in all four of these fields, and,

with the exception of the field of commerce, the vocational courses engage the attention of a relatively small proportion of the total number of pupils enrolled in our secondary schools.

COMMERCIAL AND BUSINESS TRAINING

An inevitable consequence of the disappearance of household and neighborhood economy and the centralization and specialization of industry has been the rapid expansion of occupations concerned with the transportation and distribution of commodities and the numerous commercial and clerical services thus made necessary. Between 1880 and 1930 the numbers of persons gainfully employed as salespeople and store clerks, shipping and office clerks, bookkeepers and accountants increased tenfold, and stenographers increased from numerical insignificance to almost a million. The elaboration and refinement of commercial and financial services have caused comparable increases in the numbers of commercial travelers, messengers, wholesale and retail dealers, bankers and brokers, insurance and real estate agents and other white-collar workers. Despite the nostalgic remonstrances of farmers and other workers in so-called basic industries, who would like to call the "middle-man" a parasite, the occupations of trade and commerce are essential elements in our national economy. Because of their numerical importance and the importance of the services which they render, these occupations demand consideration in the secondary school.

Secondary schools differ markedly in the means by which they seek to meet this challenge. Many schools make little or no effort to provide any sort of training for business. Thousands of them offer no courses in this field, and thousands of others offer nothing more than a traditional curriculum in stenography, typewriting and bookkeeping. The majority of these schools are, of course, small rural institutions which seem unable to provide anything more than a very meager offering in any field. Although these schools are numerous, the effects of their deficiencies are somewhat lessened by the fact that the relatively few pupils who are enrolled in them have somewhat less need for extensive business training than is appropriate for pupils in the larger urban schools. These extenuations do not, however, in any way suggest that business training in small schools is not greatly in need of perfectly feasible improvement.

In marked contrast with the offerings in many small schools, there are certain large urban schools which offer a variety of extensive curricula in different phases of business. For example, the National Survey reports seven different commercial courses in the Springfield (Massachusetts) High School of Commerce.¹ The general character of this work is suggested by the course titles, which are as follows:

- A. Accounting, for boys and girls
- B. Secretarial, for boys and girls
- C. Salesmanship, for boys
- D. Salesmanship, for girls
- E. Investments and Banking Practice, for boys and girls
- F. Civil Service and Clerical, for boys and girls
- G. College Preparatory, Business Administration and Secretarial, for boys and girls.

Outside of New York and a few other very large cities there are few secondary schools which offer anything like as much business training as is here indicated. The commercial high schools, which naturally provide exceptionally large offerings of specialized commercial subjects, are few in number, and other types of secondary schools usually provide only a few commercial or business subjects. The character and extent of the offering is suggested by the accompanying tabulation of percentages of comprehensive and commercial high schools offering instruction or training in various commercial subjects, as reported in the National Survey.² It is worthy of note that bookkeeping, typing, and shorthand are the only commercial subjects which are offered in as many as one half of the comprehensive high schools; and general business training, machine calculation, office practice, and salesmanship are the only additional commercial subjects offered by ten per cent or more of these schools.

It is apparent also that the chief differences in the commercial programs of both the comprehensive and commercial schools are in the amounts of work offered. The general trends in the nature of their subjects are very similar.

Current criticisms and recommended changes. As has been suggested previously, the technical training ordinarily offered in this field

¹ Grayson N. Kefauver, Victor H. Noll, and C. Elwood Drake. *The Horizontal Organization of Secondary Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education Monograph no. 2, pp. 81 ff.

² *Ibid.*, p. 74.

TABLE 8. SCHOOLS OFFERING VARIOUS COMMERCIAL SUBJECTS

Subject	Type of School	
	Comprehensive (760)	Commercial (16)
Advertising	1 4%	.
Banking	4	6 3%
Bookkeeping	79 7	93 8
Business English	1 0	6 3
Business organization and management	8 6	37 5
Commercial arithmetic	3 9	6 3
Commercial geography	2 4	.
Commercial law	6 6	12 5
Filing	1 6	6 3
General business training	35 8	56 3
Machine calculation	13 6	68 8
Marketing	9	.
Multigraphing	4	6 3
Office practice	42 4	75 0
Retail distribution	3 4	18 8
Salesmanship	27 2	56 3
Secretarial training	1	6 3
Shorthand	73 3	100 0
Stenotyping	2	.
Typing	82 6	100 0
Commerce and industry	.	6 3
Foreign trade	.	6 3
Machine bookkeeping	.	12 5
Machine billing	.	6 3

NOTE. The numbers in parentheses indicate the number of schools represented

is limited to a few narrow segments of the general field of business occupations. For many years commercial students have been enrolled chiefly in courses in shorthand, typing, and bookkeeping. Critics point out that at present there are many more opportunities for employment in selling than in stenography. They urge the wider adoption of courses preparatory to selling and related occupations. In this connection it is often noted also that the subjects now offered are more appropriate for girls than for boys. Increased emphasis upon general subjects of instruction, rather than highly specialized types of training, is advocated by some critics, and it seems probable that developments in this direction will continue. In the junior high school offerings of technical subjects have decreased, and general business subjects have tended to supplant them. This has resulted from the fact that the usual ages of entrance into commercial occupations have gradually increased until there is no good reason for providing technical training

so early. It is possible that the same thing will happen at the senior high-school level, since there is already a marked tendency for pupils to get technical business training after high-school graduation by attending junior colleges and proprietary schools. Some of those who advocate emphasis upon more general instruction for the secondary-school pupil are interested in providing young people with necessary backgrounds of information and insight which appear to be valuable even to individuals who will not later be directly engaged in commercial vocations. Others assert that highly specialized training in but a few fields, such as stenography or salesmanship, may be adequate preparation for those individuals who are fortunate enough later to get jobs in which their specific training is directly applicable; but that if the same few courses are to be offered to all pupils, disregarding the diversity of the commercial occupations in which they may or may not be later employed, it would be better to offer broader courses. Still others take the position that the chief weakness of the commercial field arises from the failure of its sponsors wholeheartedly to accept vocational objectives and to claim for their work the same sort of general educational or disciplinary values which are esteemed by many teachers of academic subjects. It is their belief that commercial education will not be either appropriate or effective until it provides highly specialized training aimed directly at the development of vocational competence in certain clearly determined commercial occupations.

Increased provision of commercial subjects which are broad and general in scope seems to be both desirable and feasible. Irrespective of the specialized commercial occupations in which they may subsequently be engaged, pupils need a breadth of understanding which extends beyond the limits of their immediate endeavors. Even though it may seem unfortunate that the small school is unable to provide a varied offering of specialized courses, and even though there is some uncertainty about the actual desirability of offering in the large schools the highly specialized work which might produce a high level of vocational competence, it is clear that specialized training is not the secondary school's major responsibility. The major task is the provision of instruction wherein young people will come to understand and to have wholesome interests in the activities and the achievements, the personalities and the problems, the actualities and the potentialities of our commercial economy.

INDUSTRIAL TRAINING

Two important characteristics of the industrial development of America have stimulated attempts to provide industrial training in the secondary school. Since 1870 there has been rapid migration from farms and rural villages to cities. The relatively simple and individualistic productive occupations and crafts of the home and village have given place to the highly specialized and differentiated jobs of workers in mines, factories, and utilities for transportation. These changes have not merely caught the imagination of the American people. They have made it difficult for young people easily and naturally to get access to the kinds of experience which might serve as a preparation for or introduction to industrial employment. At the same time the technical improvements in industry have greatly increased its productive efficiency and its complexity. Accordingly, relatively fewer workers are needed in proportion to the amounts of goods produced, and the industrial worker finds it neither easy nor simple to maintain his position as a wage-earner.

These general changes are reflected in many significant influences upon the secondary school. Employers of industrial labor are disposed to favor the introduction of training which will increase the initial efficiency of prospective workers. Organizations of adult workers have ordinarily encouraged the retention of young people in school. Educators have increasingly recognized that an academic program of the conventional college-preparatory type is both unsuitable and unpalatable to young people who will drop out of school or leave upon graduation to seek employment. In addition to these favorable influences, there are others which have had a hindering effect. The increased diversity, specialization, and rapidly changing vocational requirements which are characteristic of industrial occupations have made it difficult for the schools to offer training which may be counted upon to be useful to the pupil who gets it and to his employer. Since the general run of secondary-school teachers have not been able or willing to administer such training, and since persons with considerable industrial experience have seldom had the academic training which would make them seem respectable as teachers, it has been difficult to get the work started. A further deterrent is the unwillingness of many pupils to undertake scholastic preparation for industrial occupations.

Many pupils whose personal aptitudes are mediocre or inferior aspire to professional or white-collar occupations. They eschew the training which points in the direction of the less respected but very numerous fields of employment which they will eventually enter. In general, however, the larger secondary schools, particularly those which are able to qualify for subsidies, attempt to provide a small amount of industrial training of some sort.

The offering of industrial subjects. So greatly do the offerings of industrial courses vary in character and amount that no brief treatment of them can do more than suggest their chief characteristics. Three or four general levels or types of industrial offerings are commonly recognized, although they are not often very clearly defined. Technical courses, which are seldom offered except in a few schools in the large cities of the country, are distinctive in that they usually supply to a select group of capable pupils preparation for higher technical institutes and engineering colleges or semi-professional industrial occupations. Vocational courses, which are offered much more commonly and which usually attract pupils of more moderate scholastic aptitude, usually make no pretensions by way of preparation for further schooling and are often aimed at competence in industrial occupations at the journeyman level. Trade courses, if they are offered in distinction to vocational courses, are usually different from them chiefly in that they are geared to produce somewhat lower levels of competence. Practical arts courses, although they are variously conceived, tend very often to be not directly or specifically vocational in purpose, and are likely to be much more general and introductory in character. These distinctions are not universally accepted. They are indeed matters of considerable controversy among zealots in this general field. But some such definition of terms is necessary if only for purposes of discussion.

Technical courses. A high degree of specialization and a considerable tendency toward stereotyped patterns is characteristic of the courses offered in noteworthy technical high schools. Very little election of subjects is permitted. Three or four years of English, three or more years of mathematics, physics, chemistry, and American history are common elements in these courses, and the remaining work is ordinarily limited to a particular field of specialization. For example, the Architectural and Building Curriculum offered in the Cass

Technical High School of Detroit, is presented thus in the report of the National Survey:³

ARCHITECTURAL AND BUILDING CURRICULUM

Cass Technical High School is in a position to offer students either an architectural drafting or building curriculum. The subjects are the same for either course, with the exception that during the last semester a student may elect such courses as will pertain more especially to his particular needs.

The curriculum outlined not only provides for the required entrance credits, but gives the student who cannot continue his education in college a practical foundation for architectural drafting or the building occupations. The successful builder or architect must have a practical knowledge not only of building construction and drafting, but also of design, heating, sanitation, the building code, the laws pertaining to building, materials, etc.

The architectural and building curriculum outlined is not intended to train a student to be a carpenter, architect, plumber, mason, etc., but is rather for the purpose of giving a general knowledge of those things fundamentally necessary for an architect, building contractor, superintendent of construction, or tradesman, and to provide for apprenticeship in any of the divisions of the building industry.

Any student expecting to enter college must take physics as one of the electives in the last semester. If he does not expect to attend college and expects to enter an architect's office, it is suggested that he take architectural drafting as his elective. If he does not expect to enter the field of architecture, but rather that of building, he should take advanced carpentry. History of art is more useful to the student of architecture than to the one who is going into building construction.

TENTH GRADE

First Semester

English, grammar and composition
Mathematics, algebra
Architectural drafting, fundamentals
Building, elementary carpentry
Health education

Second Semester

English, American literature
Mathematics, geometry
Architectural drafting, perspective
Building, advanced carpentry
Chemistry

³ Kefauver, Noll, and Drake: *Op. cit.*, pp. 58 ff.

ELEVENTH GRADE

First Semester

English, composition
 Mathematics, geometry
 Architectural drafting, sheet metal
 Building, materials
 Chemistry

Second Semester

English literature
 Mathematics, trigonometry
 Architectural drafting, details of construction
 Building, electrical
 Building, heating and ventilation

TWELFTH GRADE

First Semester

English, composition
 Architectural drafting, plans and elevations
 Building, law code
 History, American

Second Semester

Architectural drafting, advanced perspective
 History, American
 Physics
 Elective

Technical courses in electricity, applied chemistry, machine design, commercial design, and aeronautics, which are typical offerings in urban technical high schools, definitely resemble this architectural course. Although standards of achievement in these courses are relatively rigorous, their emphasis on mathematics operates selectively to exclude pupils of inferior scholastic aptitude. It is characteristic of these courses also, as of most types of industrial training, that they give relatively little emphasis to the social studies. In providing basic technical theory as a foundation for vocational endeavor, these courses hew very strictly to the line of the distinctive needs of the occupation which is their objective. In this respect they are similar to courses representing other levels of industrial training.

Vocational and trade courses. Most of the fields of training included in strictly technical programs are to be found also in the offer-

ings at the trade level. For example, architectural drawing, electricity, machine shop, commercial art, and aviation courses, in addition to automobile mechanics, carpentry, masonry, mechanical drafting, printing, sheet-metal work, and woodwork, are not uncommonly offered in large comprehensive high schools or trade schools. These courses emphasize practical experiences in the shop, and their major objective is the development of skill and necessary acquaintance with the tools and materials with which skill is to be used. Although pupils taking these courses ordinarily are given English instruction which is reasonably similar in character and amount to that which other secondary-school pupils receive, their other work is very closely related to the peculiar characteristics of their specific trade. Their mathematics courses, for example, are intentionally restricted to include only the kinds and amounts of mathematics which are supposed to be useful in a given trade. In the same way the science instruction is carefully selected so as to include nothing beyond what is expected to be useful to the worker on his particular job.

Although vocational training in trades is thus highly specialized, the majority of secondary schools offer work in but a few trades. Of twenty-eight trade courses listed in the report of the National Survey as being relatively frequent offerings, only six trade courses were offered in as many as twenty per cent of a group of 760 representative comprehensive schools, and there were only nine of these courses offered in a like proportion of a group of 87 trade schools.⁴ Not all of the industrial subjects included in the accompanying list are definitely trade courses, and there are many other trade courses which are offered here and there in response to distinctive local demand.

General practical arts courses. Particularly at the junior high-school level, but to some extent in senior high schools as well, general shop courses are increasingly offered. In contrast with specialized shop courses, in which all pupils enrolled are given training in a particular field, such as woodwork, electricity, forging, or printing, the general shop course provides equipment and opportunity for training in a variety of fields. In some cases different individuals in such a course work under the supervision of their teacher in a variety of fields simultaneously. In other instances all pupils work concurrently in one field after another during the span of a semester or year. In either case

⁴ Kefauver, Noll, and Drake: *Op cit.*, p. 42.

TABLE 9. SCHOOLS OFFERING VARIOUS INDUSTRIAL SUBJECTS

Subject	Type of School	
	Comprehensive (760)	Trade (87)
Architectural drawing.	4 5%	6 9%
Automobile mechanics	26 3	37 9
Blacksmithing	3	
Boatbuilding	.5	6 9
Bookbinding	1 3	. .
Building trades	5	2 3
Cabinetmaking	2 0	8 0
Carpentry	17 6	34 5
Electricity. . .	20 5	36 8
Forge	2 6	2.3
Foundry . . .	1 6	2 3
General shop	1 7	.
Machine shop	32 8	41 4
Manual training	7	. .
Masonry	7	9 2
Mechanical drafting	63 5	41 4
Painting . . .	1 1	11 5
Patternmaking	5.3	16 1
Plumbing	1 2	16 1
Power machine		8 0
Printing	25 4	34.5
Radio . .	4	2 3
Sheet metal	14 3	32 2
Shoemaking	7	3 4
Upholstery . . . . .	. .	3 4
Welding . . . . .	.7	5 7
Woodwork (bench)	63 0	34 5
Woodwork (mill)	15 0	20.7

NOTE. The numbers in parentheses indicate the number of schools represented

they are given acquaintance with a variety of materials and opportunity to determine suitable fields for later specialization. General shop courses have sometimes supplanted more specialized industrial courses. Much more frequently these general courses are offered either as intrinsically useful elements in the general education of all pupils, regardless of their vocational destinations, or as introductory and exploratory prerequisites to later enrollment for training in a specific trade. These general courses differ from specialized courses not only in being broader in scope, but also in permitting the pupil to become acquainted with the operations, tools, and materials which are commonly useful to the ordinary householder.

Current criticisms of industrial courses. Critics of industrial train-

ing in the secondary school display little unanimity. Some hold that it is too general and so scholastic and unrealistic as to have little genuine utility in preparing young people for specific industrial jobs. They particularize by calling attention to the schools' common lack of up-to-date machinery, their failure to keep pace with industrial progress by providing training for new occupations and new techniques in older occupations, and their traditional emphasis upon bookish studies at the expense of practical work on the job. Others oppose these views directly. They may question the value of specialized industrial training in the secondary school because they believe that specialization in itself is intrinsically less valuable educationally than broader and more generalized training. They may grant the usefulness of specialized training but assert that it might better be postponed until the pupil has left the secondary school and until he is close enough to his vocation so that it may be determined with some certainty and so that the pupil's own recognition of his direct need for it may lead him to make more effective use of his opportunities for training. Others who grant the utility of specialized vocational training for industrial occupations doubt whether a school supported by general taxation should be expected to increase the profits of industrial employers by supplying them with skilled workers whom they would otherwise have to train at their own expense. And still others, some of whom may not give much thought to the intrinsic merits of different types of industrial training or to the broader problem of public policy, oppose emphasis on this work either because they doubt that the schools may reasonably be expected to undertake the task effectively, or because they themselves are content with the conventional academic program. Unfortunately, these disparities in viewpoint have seriously interfered with the development of industrial training in the secondary school. In general, the majority of secondary-school administrators and teachers and of professional leaders in the general field of secondary education have been somewhat unsympathetic or definitely opposed to the kinds of specialized industrial training advocated by leaders in the field of industrial education. Not unnaturally, the minority who are directly concerned with the administration of industrial training in the schools have found it expedient, if not unavoidable, to look for direction from the authorities who control the dispensation of Federal subsidies. Before the conflicting views concern-

ing industrial training can be satisfactorily resolved, some means must be found by which both the general educators and the vocational specialists may be brought to face their problems in common.

AGRICULTURAL EDUCATION

Although the agricultural colleges established under the provisions of the Federal Land-Grant Act (1862) found it necessary to offer courses of secondary-school grade to considerable numbers of students who were not qualified to undertake work of college grade, and although many states later established regional secondary schools of agriculture, training in agriculture was not commonly offered in high schools until after 1918. Since that time the number of schools offering this work and the number of pupils enrolled in it have steadily increased.

Neither general courses in agriculture nor specialized courses in its particular branches are commonly offered in urban schools, but many of the smaller schools in small villages or in the open country provide at least a one-year course in general agriculture. Somewhat less frequently these rural schools offer, either as substitutes or as supplements for the general course, training in animal husbandry, farm mechanics, field crops, or dairying. A much smaller proportion of these schools supply training in farm management, farm accounting, forestry, horticulture, poultry husbandry, or soils.

Because the boys who enroll for this training are for the most part now living on farms and because they are in many instances able to look forward with considerable certainty to farming as a permanent vocation, agricultural instruction enjoys a favorable situation. The school need make no effort to supply a realistic substitute for a non-existent vocational environment. Near-by farms offer ample opportunities for direct observation of farming conditions and activities and for the pupil's intimate participation in genuine farm work. It is no doubt partly for these reasons that agricultural instruction is generally somewhat broader in scope than that in many other vocational courses. The various activities and problems of the farmer so directly confront both the teacher of agriculture and his pupils that they tend to suggest the matters which should be included or emphasized in the program of vocational instruction and training.

During the earlier years of its development as a subject of instruction

vocational agriculture was sometimes open to criticism for its emphasis upon certain narrow aspects of the farmer's productive operations, and for its relative neglect of his somewhat less tangible but very important problems. For example, pupils would be made to spend much of their time in developing familiarity and skill in such things as maintenance of farm equipment, the production of crops, the care of farm animals, and the rotation of lands for increased production. The general economic problems of agriculture as a part of our national and international economy, the problems of conserving or restoring natural resources, and indeed the general problems of long-term farm management were usually given little emphasis. More recently, however, these deficiencies are being at least partially remedied and more attention is being given to broader problems of agricultural planning and management.

INSTRUCTION AND TRAINING IN HOME ECONOMICS

As early as 1800 certain public schools in New England regularly offered training in sewing to girls. Toward the end of the nineteenth century the manual-training movement gave impetus to training in cooking and sewing which was somewhat euphemistically called domestic science. For more than a score of years this work was carried on with comparatively little change in the character of the training. It may be that the influence of tradition and scholastic inertia have been effective in maintaining a characteristic emphasis upon cooking and the making of clothing. For, although leaders in this field recommend broader courses which deal not merely with the construction and care of clothing and the planning and preparation of meals, but also with family budgeting and purchasing, the care of the household, and family life, the courses which are most commonly offered emphasize matters related to clothing and food. Even in those home-economics courses in which attention is given to a greater variety of household activities, emphasis is placed on the material aspects of household management and the maintenance of desirable physical conditions. Although the training is often designated as homemaking, it is frequently of the sort which would be appropriate for a diligent and resourceful maid of all work who is responsible for the routine maintenance of the household but who is not expected to guide and

develop the personal experiences which are the essential values of the home and of family life.

It is possible that these emphases are influential in excluding from home-economics courses many girls who might otherwise enroll in them. Educators sometimes deplore the fact that young people seem not to display desirable attitudes toward their own homes and the homes which they will later establish as adults. It may be that the courses by means of which the secondary school now attempts to improve this situation instead tend somewhat to make it worse. Unless the course is concerned with those potentialities in home life which transcend and give meaning to the otherwise dreary round of household operations which it now seeks chiefly to alleviate, the girl who takes it may suffer from misdirection of her interests and the girl who avoids it is perhaps confirmed in her limited conception of homemaking.

Two recent trends in home-economics instruction indicate that these shortcomings may eventually be diminished. During recent years there has been growing recognition of the problems of the consumer. In the secondary-school curriculum this awareness has come to light chiefly in the home-economics course. In view of the fact that the housewife tends increasingly to be a purchasing agent and to devote less of her time and energy to the preparation of materials needed in the home, instruction in this field has at last begun to change accordingly. Since adequate judgment in the selection of goods and services to be purchased calls for an extensive background of knowledge, it seems likely that this emphasis will result in a broadening of the course. A further tendency, which appears much less frequently, but which is so significant as to merit continued attention, is the attempt to emphasize instruction in matters of personal relationships and the development and conservation of human values in the home. There are now a good many schools in which the home-economics course includes incidental reference to these matters, and there are a few very exceptional instances in which various aspects of family relationships comprise the major emphases of the course.

SOME GENERAL PROBLEMS OF VOCATIONAL EDUCATION

In connection with all branches of vocational training in the secondary school there are certain major problems and issues. There is

much dispute concerning the advisability of attempting to offer in the secondary school specialized preparation for vocations. Those who favor such effort cite the importance of one's vocation as a basic determiner of his intellectual perspective, his personal development, and his social and economic position in society. They point to the social necessity for workers who are sufficiently skillful and competent to capitalize and support the technological advances which are characteristic of and essential in our modern economy. They assert that vocational training should be offered in the secondary school, where the benevolent and disinterested intelligence of school authorities serves both to provide an atmosphere which favors the provision of adequate vocational training and to protect the pupil from the exploitation which might be his lot if he were compelled to try to make his way in the world without any vocational training at all or to get it from sources which may exploit him.

Those who doubt the advisability of attempting to provide specialized vocational training in secondary schools may cite general considerations without reference to the character of existing programs of training, or they may object specifically to the nature of these programs. For example, it is asserted that the secondary-school pupil is ordinarily so far removed from his eventual vocation as to make it impossible to predict or to select with wise assurance his eventual occupation. Even the possession of clairvoyance would not remove the difficulty, for various reasons. Technological progress may in many cases render obsolete the kinds of vocational activities for which a pupil has been trained. And many individuals shift from one occupation to another. Another point frequently made is that it is not now and probably will not soon be possible to provide specialized training in all or even a considerable portion of the many kinds of occupations in which adults are commonly employed. Some persons believe that it is unfair to pupils to provide training for some of them and not for others and unfair to society to use public funds in providing specially trained prospective workers for some employers and not for others. It is sometimes recognized also that vocational training is not a satisfactory substitute for the general education which develops the insights, abilities, and interests which are essential to good citizenship and to intelligent and responsible action in occupational life and in other fields of human endeavor and common concern. Many of these

considerations lead persons to believe that, although they apply forcefully in excluding specialized vocational training from the secondary school, they positively suggest that society should make definite provision for many types of vocational training at a post-secondary-school level. If this training is postponed until the individual has definitely arrived at the point of entrance to or has actually entered a vocation, its useful pertinence is assured, its tendency to be obsolescent is diminished, and the relative maturity of the trainee and the reality of his work make his vocational training much more effective.⁵

Those who criticize the qualitative characteristics of conventional types of specialized vocational training in the secondary schools frequently mention some of the difficulties cited by the advocates of exclusion. Having in mind the unpredictability and remoteness of the pupil's eventual occupation, they criticize existing types of training as being altogether too specific and too narrowly limited in their applicability. Even if it be conceded that highly specialized training is useful to those supposedly few individuals who are fortunate enough eventually to enter the relatively few occupations for which the secondary schools provide training, its narrow applicability makes it useless to those who are destined to find themselves in occupations other than those for which they have had training. We do not now know very much about the extent to which pupils do subsequently engage in occupations closely related to the specialized training which they have had, but it seems safe to assume that many of them do not. Many persons oppose the narrow character of specialized training even in the case of those pupils who enter occupations to which it pertains. They assert that vocational courses emphasize the development of the skills needed for the operative aspects of a job and the technical information which is needed to support these operations. In other words, the vocational course somewhat redundantly provides the kinds of competence which are obviously needed on the job and which are in fact often easily developed on the job. But the broader insights which are fundamental to intelligent and responsible vocational citizenship, and which are neither so obvious nor so easily acquired on the job, are neglected.

⁵ Contemporary trends lend support to this contention. Although the numbers of secondary-school pupils enrolled in vocational courses have been increasing, both their numbers and their rates of increase are greatly exceeded by the numbers of young people and adults who participate in part-time vocational training in connection with their present employment.

Both laymen and educators who are not very familiar with the kinds of vocational courses which are characteristic of contemporary secondary schools may not easily appreciate the reasons for these sharp conflicts in opinion. There is not so much conflict about the importance and potentialities of vocational education in general as there is about the particular kind of vocational training which the schools have and the influences which cause them to have it. Partly because of the large federal subsidies made available through the Smith-Hughes Law and other congressional legislation, central authorities in federal and state governments have been able to prescribe definitely the practices to be followed in vocational training. The strong support of the American Vocational Association has also fostered the standardization of a particular type of training. Some persons object chiefly to such imposition of uniform practices, and advocate more flexibility and more reliance upon local initiative and responsibility. Others are more concerned with objectionable features of the "Smith-Hughes" type of curricular program. They point out that it tends to segregate "vocational" pupils from "non-vocational" pupils, since the pupils enrolled for the course in agriculture, or in home economics, or in carpentry are often made to take their "related mathematics," "related science," or "related English" in special classes composed only of vocational pupils. Moreover, the mere existence of these special related courses is symptomatic of a high degree of specialization which is characteristic of the entire vocational program. For example, the boy who is enrolled in the course for prospective bricklayers is intentionally taught only that mathematics, science, and English which is presumably necessary for bricklayers, and his training in bricklaying is limited chiefly to the concrete and manipulative aspects of bricklaying. If this specialized training were but a small fraction of his total program, there might not be so much objection to it. However, the central authorities require that the training shall occupy much larger units of time than are used in the teaching of other school subjects. Because of these peculiarities much of our vocational training arouses opposition and criticism even from those who sincerely urge the secondary school to provide suitable vocational education.

Some unfortunate influences. Extenuation of the narrowly specialized character of many vocational courses may be found in the fact that they still reflect the transient and exceptional necessities of war-

time production. The policies and the patterns through which vocational education was stimulated in the years following the World War were influenced by the fact that the American people had for some years been bending their energies in an attempt to produce commodities of all sorts as quickly as possible. College girls became "farmerettes," farmers served as builders of ships, and even pugilists were expected to produce something useful. Both the extraordinary need for productive skill and the lack of it among people who were suddenly shifted into unfamiliar and abnormal occupations tended to emphasize, if not to distort and exaggerate, the importance of training for productive skill. At the same time the urgencies of war, the tendency temporarily to disregard human values, and the necessity of immediate achievement, even at the expense of broader and more permanent advantages, naturally caused men to belittle or neglect the importance of broad backgrounds of understanding. It is unfortunate that these temporary conditions should have been allowed to influence the development of lasting policies in promoting vocational education.

In this connection it should be remembered also that the sponsors of academic school subjects must probably take some blame for the narrow emphasis upon training for specialized proficiency in many vocational courses. Very often a pupil whose attainment in conventional academic courses is unacceptable is undeservedly assumed to possess little or no intellect, and the training of his muscles is considered in preference to the development of his mind. Such a view has stultifying effects on vocational training. As long as the academicians were able to use vocational departments as "dumping grounds" for their unsatisfactory pupils, the teachers of vocational courses had little encouragement to develop breadth of insight and appreciation. More recently, however, there have come to be many schools in which the numbers of pupils applying for vocational courses is large enough to permit the vocational divisions also to be selective. As this condition continues the vocational curricula may be expected to be modified in breadth and quality.

Although there are many problems in this field which must remain unsettled for some time to come, it is apparent that the vocational courses ordinarily offered in secondary schools are somewhat unsatisfactory. Obviously, under anything like the present system, the

schools cannot now and will not soon be able to provide suitable and effective vocational preparation for anything like all of the occupations in which their pupils will later be engaged. Indeed it can be said that they do not and probably cannot provide both the general education needed to support further personal development and responsible citizenship, and the specialized training needed to make pupils who leave the secondary school to enter wage-earning occupations fully ready to carry on without further training. Various choices confront the secondary school. It may, as it now tends usually to do, make meager, piecemeal attempts to provide some general education and no vocational preparation for some pupils, less general education and a little vocational training for others, and very little general education and somewhat more vocational training for still others. Only those who believe that anything worth doing is worth doing poorly can subscribe enthusiastically to this policy. A different choice lies in the direction of minimizing the importance of general education in order to apply the school's resources more directly to the task of providing vocational preparation. Supporters of this view assert that, although it may be pleasant to have the benefits of a good general education, neither these benefits nor others are worth much unless one is able to earn a living. There is not enough truth in this contention to make anyone who has had a reasonably good general education willing to apply it to himself, although there are apparently some school officers who are willing to have it apply to some of their pupils. If the school takes this choice, it will do so in disregard of its commitment to the democratic ideal. A third possibility is to make provision of specialized vocational preparation, as well as all other forms of specialized training, definitely subordinate in importance to the provision of adequate general education. The potentialities of this policy merit considerable attention.

If it be granted that the secondary school's chief obligation is to provide suitably for the development of appreciative understanding of the world and of the individual's relationship to it — this objective being the major concern in the pupil's general education — and if it be granted also that the secondary school cannot possibly provide complete specialized training for all of the various fields of activity, vocational and otherwise, in which some of its pupils need higher levels of competence, the school must be discriminating in its functions.

It will be helpful in developing a rational policy of discrimination in function if it is clearly recognized that the school can and should assume responsibility for seeing to it that certain types of educational experience are provided for young people without undertaking to supply these opportunities directly as elements in its own institutional program. For example, a secondary school may discover that many of its pupils who leave school to undertake industrial employment are handicapped by lack of adequately supervised training in certain technical skills. Recognizing also the impossibility or comparative undesirability of attempting to provide this training in the school, the school may very well seek to insure arrangements whereby other agencies are used to provide it. The feasibility of this procedure has been demonstrated in many industrial cities, and it has become a standard practice in agricultural training. There are often difficulties, some of them particularly irritating to school people who can be comfortable only when they are cloistered within the insulating confines of the school building, but the potentialities seem to outweigh the difficulties. In following this policy of providing certain kinds of educational opportunities directly and arranging to have other kinds provided supplementarily by other agencies, both small and large schools might greatly increase the scope and validity of educational opportunities for their present and former pupils. It should be borne in mind that the supplementary agencies which provide specialized training need not be large-scale industrial enterprises. There are in every community both individuals and organizations in a variety of fields of activity whose ability and willingness to provide useful experience for young people the school might well capitalize. Facilities for effective co-operation and supervision would be needed. But they might in many cases afford a much more profitable investment of the school's available resources than is now to be found in the very limited and unsatisfactory provisions for specialized vocational training which are attempted in the general run of secondary schools.

The need for emphasis on vocations in general education. Vocations are not solely the concern of those who directly participate in them, and the secondary-school program should recognize this fact. Particularly in a democracy it is essential that every individual be intelligently and responsibly interested in the lives and circumstances of his fellows. He needs not only to understand his own work, its

values for himself, and its contributions to the general welfare, but also the work which others do, its values for them, and its relation to his own life. This need is abundantly illustrated in the march of everyday events. The perennial discords between employers and employees, the conflicting interests of producers and consumers, and the all too frequent tendency of certain vocational groups to aggrandize themselves at the expense of others, show how greatly we lack the insights which stimulate and direct mutual sympathy and co-operation. Vocation plays so important a part in determining an individual's personal development, his social and economic status, and even his characteristic modes of thought and action, that men cannot understand one another unless they take their work into account. The citizen must understand not merely the general social significance of his own vocation, but also the nature and importance of the vocations of others if we are to have the social solidarity and cohesion which are essential in a democracy.

These essentials for the general welfare are equally advantageous to the individual. We are all compelled to use the services of others. Unless we are aware of the relative values of these services, unless we understand the personal qualifications which make for competence, unless we can discriminate intelligently between satisfactory performance and inefficient workmanship, we are unlikely to make the best use of the services which we need. In the field of health, for example, many individuals suffer needlessly because they do not know where to go for appropriate health service, or how to select a competent expert, or possibly because they do not even know that there is a type of health service which in any way meets their needs. Unless we are generally intelligent with respect to the actual characteristics and the potential contributions of individuals whose vocations differ widely from our own it is unlikely that we will be suitably served or that they will be stimulated to develop higher standards of service.

In view of these necessities the secondary school's usual approach to the problems of vocational education is something to be wondered at. It would seem that an institution which has long been in the business of giving pupils facts might have been disposed naturally to meet the demand for vocational education by giving pupils facts about vocations. Having dealt traditionally with vicarious experience, it might have been expected to provide for some vicarious experience

with respect to vocational life. With maladroit virtuosity, however, it has sought to pay its respects to vocational life by neglecting the relatively feasible task of developing understanding and appreciation of vocational life as an important element in our contemporary culture and by attempting to improvise in the academic atmosphere of a school some reasonably convincing replicas of the physical equipment and the technical operations which belong to a few of the scores of jobs which are partial elements in scores of vocations which are important in American life. Specialized training as a preparation of the individual for direct participation in a job is one thing, and it is conceivable that it may be effectively provided for many young people. But it is by no means a suitable substitute for instruction which develops understanding and interest in the place of vocational life in general and of the characteristics and contributions of various vocations in particular.

Instruction concerning occupations. The so-called occupations course which is offered in a few secondary schools suggests some recognition of need for instruction in this field and indicates the scant attention which is paid to it. Offered usually as a half-year course at the junior high-school level, it has only a meager and precarious foothold in the formal program of instruction. So little time is devoted to this course that it can do little more than present sketchy information concerning the opportunities and activities of a few vocational groups. In many instances it is intended primarily to help the pupil to select a field of endeavor in which he thinks he would like to be a participant. The obvious inadequacies of the course lead some people to believe that many pupils are just as well off without having it, particularly if it encourages them to make definite vocational choices. What the future has in store for this course is unpredictable. But it is significant as a symptom of our groping toward instruction which will increase and clarify the pupil's understanding of the challenges and futilities, the advantages and handicaps, the achievements and failures, the services and parasitisms which are characteristic of our complex vocational life.

It is sometimes suggested that instruction concerning vocations is appropriately a part of instruction in the social-studies and that the need for it will be adequately provided for if social-studies teachers will give incidental emphasis to it in connection with their other work.

Although vocations have social significance and although even the vocational life of the individual has its social aspects, there are certain intrinsic limitations in using a social-studies approach to this field. A man's vocation is a highly personal and individual matter. If we look upon a vocation chiefly as representing the enterprise of a social group we inevitably lose much of its characteristic flavor. The secondary-school pupil particularly cannot be expected to understand the characteristics, problems, and contributions of bankers, coal miners, physicians, stenographers, and mill workers as occupational groups unless he knows of their lives and work as persons. These personal insights are serviceable in many ways. They help the individual more wisely to select a suitable field for his own life's work. They give meaning and importance to one's vocation, so that it is not merely a chance for narrow money-grubbing, but a broader avenue of personal satisfaction and development. And they supply the foundations without which fraternal goodwill, civic benevolence, and concern for the general welfare tend to be merely hollow sentiments. So important are these insights, both in the personal orientation of the individual and in the development of responsible concern for the welfare of others that the secondary school ought to provide much more fully for their development. It is, of course, less important to decide which division of the school program should be responsible for this instruction than to take definite and positive steps whereby the development of understanding of vocations and vocational life will be fully insured.

The general field of vocational education and training is beset with problems so numerous that many of them cannot even be mentioned here. It is hardly to be expected that they will be solved soon and satisfactorily, and the comparative novelty of this work in the secondary school limits the possibility of discerning improvements whose worth has been demonstrated in practice. However, it seems reasonable to provide much more fully than at present instruction which aims directly to develop in all pupils, regardless of their particular occupational destinations, intelligent and responsible interest in the vocational aspects of American life. Such provision is an essential element in general education. Fortunately, this instruction can be provided in any secondary school, since it requires neither the elaborate physical equipment nor the prophetic certainty with respect to pupils'

eventual occupations which are necessary for valid specialized training. This type of general education is a primary obligation of the secondary school, and specialized preparatory training is not a valid alternative or substitute. If general vocational instruction is omitted from the secondary-school program, attempts to provide specialized preparatory training tend to be distorted, footless, abortive, and condemned. The development of appreciative insights concerning vocational life is a necessary part of the general education of all young people and a valuable prerequisite for those who leave the secondary school to engage in wage-earning occupations.

The need for imaginative experimentation. The secondary school's attempts to provide specialized technical training preparatory to particular vocations raises problems for which no clear solutions are at hand. Even if it is assumed that this training ought to be provided through public support, it is by no means clear that this will be possible under anything like present conditions. Obviously, not every secondary school can even nominally attempt to offer specialized training for the great variety of eventual occupations of its own graduates. Perhaps the problem can be partially solved through the provision of differentiated technical training centers, which will provide selected types of training for young people who have completed general programs of education in unspecialized secondary schools and whose occupational destinations are sufficiently certain to make it both profitable and feasible to give them specialized training for their jobs. It must be recognized, however, that this arrangement has been advocated for a long time without having become widespread in practice. Another possibility, which has been somewhat more widely accepted, is the utilization of actual out-of-school employment opportunities as avenues for supervised acquisition of performance ability on the job. None of these is so surely promising as to merit zealous and wholesale promotion. What is needed is imaginative and rigorously critical experimentation in these and other directions, in the expectation that much which is tried may have to be discarded and in the hope that procedures for specialized training will soon be much more suitable than they are at present. It is particularly important that the school make some provision whereby young people who leave it directly to undertake vocational employment shall have opportunities for supervision as they make a beginning in their vocational experi-

ences. In some instances the school may perhaps best provide these initiatory experiences through the use of its own facilities. In others, it may well seek to capitalize opportunities outside the school. If for these pupils the school seeks to focus its vocational-adjustment services chiefly upon the kinds of work in which its young people find their first employment, it is to be expected that this aspect of the program must be planned in terms of the jobs open to young people in its immediate community and that the training programs in schools in different communities will differ considerably.

No less important, however, is the need for the offering of instruction wherein all pupils, regardless of their particular occupational destinies and their peculiar needs for individual training, may come to understand and develop a responsible interest in the vocations of men generally. Such instruction will, of course, yield directly important vocational values, but it will contribute in large measure to general civic intelligence and personal satisfaction.

Problems urgently demanding solution. The very rapidity with which work in vocational subjects continues to increase in the secondary school lends importance to the necessity of improving these offerings. Much more important than these scholastic symptoms, however, are the economic and general social trends outside the school. Although the occupations of men have always exerted strong influences upon the social order in general, there has probably never before been a time when there was such rapid change in the character of vocational activities, in the shifting occupational status of thousands of individuals, and in the importance of occupational life as a phase of our culture with which every citizen must be actively, intelligently, and unremittingly concerned. The scope and acceleration of these changes suggest that the school's responsibilities with respect to them cannot be suitably discharged through the continued use of stereotyped patterns, no matter how effective these patterns may once have been. Here, perhaps more than in any other part of its work, the secondary school must be highly original, adaptable, and experimental. In brief summary, some of the major problems to be solved in the secondary-school program related to the vocations are represented in the following questions.

1. *To what extent is it desirable and feasible to provide in secondary schools specialized training genuinely approximating the performances of workers in*

particular occupations? Possibly such training is less needed and less feasible than its proponents believe. Certainly the great majority of industrial occupations do not call for a high degree of initial skill of the sort which can be acquired only through long preparatory training. Even in those vocations in which fine skill is essential it may not be desirable or feasible to provide for its production in the secondary school. To the extent that there is need for preparatory training in vocational skills, provision may be made for it in centralized, specialized schools concerned primarily with training for particular types of work. Or, it may be wise, particularly in occupations subject to drastic and recurring technological changes, to encourage industry to provide suitable opportunities for specific training in skills needed by its workers. In any case, it seems unreasonable to expect that secondary schools generally should make even a pretense of supplying adequate programs of complete specialized training.

2. *What should the secondary school do to provide general practical training for those pupils who terminate their schooling at the secondary level?* Presumably these pupils comprise the majority of secondary-school pupils for whom practical preparation for vocational life is needed. What kind of training and how much of it is necessary is by no means clear at present. Highly specialized training in the skills of the job is clearly inappropriate. Presumably, this training should enable the individual to cope realistically with the problem of getting a job, learning as effectively as possible how to do the job competently and satisfactorily, and adjusting easily to its material and social environment. So little has thus far been done here as to provide few clues to the practical solution of this problem. Although a part of the task can perhaps be done as a matter of advance training in a school, much of it may have to be done through agencies for out-of-school supervision and guidance of young people who are making their initial contacts with occupational life.
3. *How soon and through what means can the secondary school provide for all pupils valid courses of instruction intended primarily to increase understanding and appreciation of the vocations?* Provision for such instruction is an indisputable obligation of a secondary school committed to the realization of the democratic ideal. Neglect of this matter arises jointly from the complacent disdain of academicians for the utilitarian elements in our common culture and from the narrow conceptions of technicians in vocations and arts. A remedy should not involve serious inherent difficulties, provided the need for it is wholeheartedly recognized.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. In some small community or neighborhood with which you are familiar, trace the changes which have taken place in the domestic and occupational aspects of community life, and show how these changes have influenced the obligations of the secondary school.
2. Investigate and evaluate the policies and practices of some secondary school or local system of secondary schools with respect to the nature and functions of their vocational training. Note particularly the extent to which vocational work serves chiefly as a substitute to be offered to pupils for whom the academic program is unsuitable.
3. Examine in some detail the content of secondary-school courses in business, and identify those which are chiefly suitable for (a) the development of understanding and appreciation of business and commerce, and (b) the production of specialized proficiency.
4. Study the kinds of jobs obtained by pupils who have left a secondary school, giving attention both to graduates and non-graduates and to the kinds of training which they had previously obtained in school. Be sure to take into account not only those who obtain jobs closely related to their previous training, but also those who obtain jobs without any previous specialized training. If circumstances permit, investigate also the extent to which pupils who have left the secondary school have been unable to obtain jobs.
5. Interview a number of persons who regularly employ young people who have had no training beyond the secondary-school level, in order to obtain their views concerning the characteristic merits and shortcomings of these young people. Interpret the findings in relation to the program of the secondary school.
6. Advocates of secondary-school courses in agriculture sometimes claim that these courses help to make boys content to remain in rural communities. Is this a worthy undertaking for a secondary school?
7. Suppose it were possible for a secondary school to offer two different courses in home economics, one for girls who will become domestic servants, and one for the housewives who will be their employers. In what important respects should these two courses concur or differ?
8. Examine in some detail the arts courses which are offered in a secondary school in order to determine to what extent they are representative of the various arts which have an important place in our civilization.
9. Suppose that in a small secondary school it is possible to offer only one course in music. What should be the characteristics of the course if it is to yield maximum profit to the largest possible number of pupils?
10. Prepare a tentative outline for a two-year course in vocations which would be suitable for all secondary-school pupils and which would have

as its main objective the development of understanding and interest rather than the production of technical competence

11. Examine some vocational courses in agriculture, homemaking or trades to determine how much attention is given to the development of understanding of important matters transcending the immediate operations of the job, such as labor organizations, relations between employee and employer, relations between producers and consumers, unemployment insurance, and the like.
12. Interview some teachers of academic subjects in secondary schools in order to find out what they think the secondary school as an organization and they as individuals ought reasonably to be expected to do in order to help boys and girls to prepare to earn a living.
13. Because of the fact that vocational education at the secondary-school level is for the most part relatively new, it is to be expected that there will be considerable innovation and experimentation in practice. In order to keep in touch with these changes, make a comprehensive canvass of magazines and other periodical publications in order to select those which contain the most information concerning current developments in vocational education.
14. It is increasingly recognized that many boys and girls who will later enter industrial employment need not have in the secondary school specialized training in the technical operations of the job. Even so, the school can hardly assume that the youngster needs no preparation whatever for vocational life. Make a careful study of what the prospective industrial worker needs in addition to specialized technical skill, if he is to become a competent worker in the best sense. Formulate as definitely as possible the kind of preparation which the secondary school should attempt to give him in order to contribute to his readiness to adjust himself satisfactorily to vocational life.
15. Make a careful survey of the kinds of jobs which are open locally to youngsters on the point of leaving the secondary school. Try to find out as definitely and as realistically as possible what kinds of knowledge and ability boys and girls require for a *satisfactory beginning* in these jobs. Then see what could be done by the secondary school to help these youngsters get the kinds of educational experiences which will develop this minimal knowledge and ability. Keep in mind the fact that formally organized instruction may serve in part and that it may be wise to make use of some experiences which can best be provided outside the school itself.
16. With respect to vocational training in the United States there have been for many years two widely prevalent but rather sharply conflicting points of view. One of them emphasizes special training which is highly specialized, functionally practical, focused directly on the development of abilities used by the worker on the job, and tending to exclude any-

thing which is not demonstrably and closely related to the development of these abilities. The other point of view emphasizes broader preparation, less specialization and more exploration, in a curricular program which includes considerable instruction which has no vocational emphasis at all. Each of these emphases is reflected in markedly different school practices. It is therefore a matter of some importance to attempt to arrive at a pretty clear understanding of the relative merits of these viewpoints, and it will be profitable to make each of them the subject of considerable reading and study. It will be well to recognize the possibility that the conflict may be not merely a matter of disagreement about educational methods, but that there may be equally great disagreement in unspecified assumptions concerning the nature of vocational life itself, either as it is or as it should be.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF VOCATIONAL AND PRACTICAL ARTS TRAINING

Vocational Education in General

The general introduction by Mays will be particularly helpful to the reader who is not yet well acquainted with the general field of vocational education. Mays deals not merely with the general field and its relation to other aspects of education, but with special phases of vocational education as represented in work in home economics, commercial, industrial, agricultural, and practical arts training. Lee's book is also a very useful treatment of the general problems of vocational education. Snedden presents some very definite viewpoints concerning the general character and institutional organization of vocational training. The book by Kallen is a dynamic and challenging consideration of the development of industrial education in the United States and of certain underlying preconceptions which have shaped its character. Although Kallen deals directly with industrial education, the problems which he raises are not confined to this aspect of vocational education alone. The study by Kimball, even though it does not deal to any considerable extent with vocational education as such, presents facts which are very significant for their bearing upon it. Although it reports a careful, scientific investigation, it is somewhat more readable than most research studies. The study by Davidson and Anderson serves much the same purpose. Another very significant report based on careful research is presented by Paterson and Darley; although it is primarily concerned with unemployment and the factors related to it, the discerning reader will find in it many very potent implications for vocational education. Norton's Regents' Inquiry report is particularly valuable, both because it is based upon systematic investigation of the methods and results of vocational training in the schools and because it suggests significant departures from conventional practices.

- Davidson, Percy E., and Anderson, H. Dewey: *Occupational Mobility in an American Community*. Stanford University, California: Stanford University Press, 1937. 203 p
- Kallen, Horace M.: *Education, the Machine and the Worker*. New York: New Republic, Inc., 1925. 204 p
- Kimball, Bradford F.: *Changes in the Occupational Pattern of New York State* (Educational Research Studies, 1937, no. 2) Albany The University of the State of New York, 1937. 190 p.
- Lee, Edwin A. (Editor): *Objectives and Problems of Vocational Education*. New York: McGraw-Hill Book Co., Inc., 1928. 451 p.
- Mays, Arthur B. *An Introduction to Vocational Education*. New York: The Century Co., 1930. 323 p.
- Norton, Thomas L. *Education for Work*. The Regents' Inquiry. New York: McGraw-Hill Book Co., 1939. 260 p.
- Paterson, Donald G., and Darley, John G.: *Men, Women and Jobs*. Minneapolis, Minn.: University of Minnesota Press, 1936. 145 p.
- Snedden, David: *Vocational Education*. Boston: Houghton Mifflin Co., 1910. 85 p.

Commercial Training

For those who wish to find in one book a comprehensive presentation of the general field of commercial training, the text by Nichols is in a class by itself. Although it is forward-looking, it is sufficiently conventional in viewpoint to be fairly representative of contemporary practice. The book by Kitson is a collection of essays by various authorities who advocate and describe ways in which commercial training may free itself from its traditions. Those who are interested in the possibilities of making training for commercial occupations a somewhat broader education will find the material presented by Lyon suggestive. The book by Lomax will be helpful to teachers who wish to apply certain commonly accepted principles of teaching to the commercial field, although it is less comprehensive in scope than the books previously mentioned. Tonne and Tonne offer specific suggestions for making commercial education somewhat less narrowly technical in emphasis. All of these books are relatively simple in statement and readable without too much difficulty. The summaries and bibliographies by Blackstone in the *Review of Educational Research* indicate specialized studies which may be helpful to those who wish to explore further the literature in this field.

- Blackstone, E. G.: "Commercial Subjects," *Review of Educational Research*, 2:67-70, 92-93 (February, 1932)
- : "Commercial Subjects," *Review of Educational Research*, 4:489-94, 534-35 (December, 1934).

- Eastern Commercial Teachers Association: "Business Education in a Changing Social and Economic Order." *Seventh Yearbook*. Philadelphia: The Association, 1934. 463 p.
- Graham, Jessie: *The Evolution of Business Education*. (Southern California Education Monograph, 1933-34, Series no. 2) Los Angeles: University of Southern California Press, 1933. 228 p.
- Kitson, Harry D. *Commercial Education in Secondary Schools*. Boston: Ginn & Co, 1929. 374 p.
- Lomax, Paul S.: *Commercial Teaching Problems*. New York: Prentice-Hall, Inc., 1928. 200 p.
- Lyon, Leverett S.: *Education for Business*. Chicago: University of Chicago Press, 1931. 586 p.
- Nichols, Frederick G.: *Commercial Education in the High School*. New York: D. Appleton-Century Co, 1933. 514 p.
- Tonne, Herbert A., and Tonne, M. Henriette: *Social-Business Education in the Secondary Schools*. New York: New York University Press Book Store, 1932. 288 p.

Home Economics

General and comprehensive books dealing with education for the home are very few. The book by Williamson and Lyle is the best available general textbook in this field. Although it is intended primarily for the specialist, it will be useful to the general student who needs to increase his acquaintance with the work of the home economics teachers. (Because of the limited character of the literature in this field, it is perhaps well to suggest the use of current numbers of the *Journal of Home Economics*.) The study by Leighton contains descriptive case studies which are suggestive of the possibilities of improving home life through direct instruction in school. The bulletin by Amidon is at least indirectly indicative of the general scope of typical instruction in home economics, as is the bulletin by Blake. Both of these bulletins are intended for the use of home economics teachers. The summaries of research and the bibliographies prepared by Richmond and Douglass and by Brown for the *Review of Educational Research* indicate more specialized materials for those who wish to study special aspects of training in home economics.

- Amidon, Edna P.: *The Teaching of Science Related to the Home*. Federal Board for Vocational Education Bulletin no. 158, 1931. 127 p.
- Blake, Jane Hinkley: *The Home Project in Homemaking Education*. Federal Board for Vocational Education Bulletin no. 170, 1933. 178 p.
- Brown, Clara M.: "Home Economics," *Review of Educational Research*, 4:510-12, 545 (December, 1934).

- Leighton, Frances Howe: *A Basis for Building a Course in Economics of the Home*. (Contributions to Education, no. 459) New York: Teachers College, Columbia University, 1931. 114 p.
- Richmond, Jean, and Douglass, H. R.: "Home Economics," *Review of Educational Research*, 2:72-73, 93 (February, 1932).
- Williamson, Maude, and Lyle, Mary S: *Homemaking Education in the High School*. New York: D Appleton-Century Co., 1934. 500 p.

Industrial and Agricultural Training

The brief histories of industrial education by Anderson and Bennett are written simply and clearly, and will be helpful both to the general reader and the person specially interested in this field. As its title indicates, Bennett's book does not deal with comparatively recent developments. It does, however, incorporate numerous interesting selections of source materials. The bulletin by Proffitt and others is an excellent brief compilation of various elements in industrial arts education. Many of the practices which it mentions are significant departures from the more traditional type of industrial training. Lacking more comprehensive treatments of industrial education, the reader will do well to consult the reference to Lee and to Mays in the list of books on vocational education in general. Peffer supplies an extended but readable and suggestive discussion of what progressive industries are doing to supply needed training for industrial workers. Brief examination of Mays' and Strickler's summaries and bibliographies in the *Review of Educational Research* will indicate some more specialized materials useful for those with interest in special aspects of this field. The paucity of materials on industrial education is exceeded by that of the publications dealing with training in agriculture. Although it is somewhat technical in form, Schmidt's study is indicative of the major elements of agricultural training in the schools.

- Anderson, L. F.: *History of Manual and Industrial School Education*. New York: D. Appleton Co., 1926. 251 p.
- Bennett, C. A.: *History of Manual and Industrial Education Up to 1870*. Peoria, Ill.: The Manual Arts Press, 1926. 461 p.
- Mays, A. B.: "Industrial Arts," *Review of Educational Research*, 2:74, 75, 93 (February, 1932).
- Peffer, Nathaniel: *Educational Experiments in Industry*. New York: The Macmillan Co., 1932. 207 p.
- Proffitt, Maris M., and others: *Industrial Arts: Its Interpretation in American Schools*. U.S. Office of Education Bulletin, 1937, no. 34. 125 p.
- Schmidt, G. A.: *Vocational Education in Agriculture in Federally-Aided Secondary Schools*. (Contributions to Education, no. 534.) New York: Teachers College, Columbia University, 1932. 94 p.
- Strickler, Fred: "Industrial and Vocational Education," *Review of Educational Research*, 4:495-97, 536 (December, 1934).

MUSIC AND THE ARTS

IF FRIENDS of the secondary school have reason to be disconsolate concerning its attempts to provide vocational education and training, they may at least find some small ground for comfort in observing that the so-called vocational subjects are hardly as narrow and ill-favored as those which represent the arts. Indeed, the arts deserve attention not so much for what they are in the secondary-school program as for what they may well become. During the past quarter-century the arts have won increased prominence in the secondary school, in the numbers of schools which offer instruction or training in them, in the proportions of pupils enrolled, and in the emphasis allotted to them in the program of studies. Unfortunately, however, the richly varied gamut of the arts is but meagerly represented in the typical secondary-school program of studies by work in music and drawing, and even in these two fields there is evidence of confusion in aim and traditionalism in procedure.

Instruction and training in music. The extent and character of the secondary school's effort to provide musical experiences of some sort for its pupils cannot be stated with accuracy. Some schools include in their regular programs of studies a considerable miscellany of systematic courses in music. Others provide comparable offerings on an extra-curricular basis. Some provide for their pupils little or no musical experience of any sort. In those larger schools which offer relatively extensive programs in music the instruction may represent one or more of some five different types of work: Group training in performance of instrumental music; group training in performance of vocal music; individual training for performance, with more frequent emphasis on instrumental than on vocal music; systematic instruction in the conceptual elements (theory) of music; and regular but somewhat less formal "appreciation" courses which are highly variable and which may emphasize instruction in the history of music, a speaking acquaintance with the works of illustrious composers or with the vari-

ous instruments which comprise an orchestra, or frequent opportunities to listen to music itself. The offerings in small schools are much less extensive and tend to emphasize more or less valid attempts at training in group performance.

Values claimed for training in music. The sponsors of this work have a variety of aims.² They lay claims to such outcomes as "a true appreciation and love for the beautiful," increased "power of attention, observation, and concentration," development of "a safe emotional outlet for leisure time," development of "the respiratory and vocal organs, and sounder bodies through better oxygenation of the blood," "intelligent international understanding," as well as exemplary civic qualities and worthy attitudes toward the home, school, community, nation and the world in general. If all of these outcomes measurably result from the provision of anything as feasible as a high-school band or glee club, those who seek the quick coming of the millennium should be greatly heartened.

In all probability, however, the claims which teachers of music sometimes state are not actually the purposes which govern their practice. In many instances the major purpose is to produce musical performances which will edify or entertain a public audience. In other cases it is to produce the most music or the best music possible, as an end in itself. The development of competence in the musical performance, or in the theoretical knowledge which is contributory to musicianship, as a preparation for subsequent musical activity, in further schooling, wage-earning occupation, or leisure enjoyment, is also a widely accepted aim. Somewhat less frequently, but increasingly, the purpose is to develop among young people generally a favorable and intelligent interest in music. Although none of these aims is intrinsically unworthy, the last seems more justifiable from an educational standpoint than the first two. Indeed, it is not infrequently the case that primary concern for the production of music for purposes of public consumption restricts or interferes with the educational benefits which accrue to the pupils. Many a music contest has been won by pupils who have been drilled for impressive performance of a few program pieces to the neglect of their own needs

² Anne E. Pierce: "Music," Part I of *Instruction in Music and Art* U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 25, pp. 6 ff.

for broader training. In order to meet the urgent demands of the lay community many schools are compelled to strive chiefly to supply musical entertainment and to disregard somewhat the educational advantages which should be provided for their pupils.

From the standpoint of the education and training of secondary-school pupils it is important to emphasize and to distinguish clearly two major functions, namely, the development of musical interests and insights in all pupils, and the production of relatively specialized musical abilities in those pupils whose exceptional talents, interests, or needs make specialized training appropriate. The first of these functions has not been very widely recognized until recently. Although many schools are attempting to provide suitable appreciation courses in music, much of what is done in the effort to encourage and cultivate intelligent interest in music is rather unsatisfactory. Difficulty arises partly from the fact that general music courses are relatively new. Suitable textbooks are few. Teachers of music have usually been concerned primarily with training for musical performance and do not find it easy to identify the kinds of musical values which are suitable for the layman or to select the educational experiences which will produce them. Consequently, the course in general music or music appreciation varies greatly from school to school. Not infrequently it is little more than the fundamentals of musicianship in diluted form, and pupils are expected to acquire a liking for music through the study of musical notation, the history of music, or more or less formal analysis of various aspects of theory and style. In other instances, pupils are made to listen to musical productions of various sorts. Ordinarily the pupils in these courses are very heterogeneous in their musical tastes or distastes, with the result that experiences which are suitable for some are undesirable for others.

The distinctive needs of the ordinary layman. In spite of these difficulties, many of which will be remedied as schools get more experience in dealing with them, the secondary school may profitably give increased attention to the development of experiences whereby young people generally will become interested and discriminating. It is not to be expected that musicians themselves will be much esteemed or rewarded if the general public is apathetic or unable to appreciate their work. For the amateur, music furnishes a rich source of personal satisfaction, and the power of music subtly and deeply to stir the spirit

and to foster social sympathy needs no exposition or defense. Although there is much that is creditable in the extent to which the American people demonstrate an active interest in music and in the nature of their musical tastes, there is obviously plenty of need for improvement in these matters. The secondary school contributes benefits to society and to the individual in providing suitable experiences for the positive development of insight and interest in music on the part of all its pupils. Many schools which now emphasize training in musical performance might perhaps do well to divert at least a portion of that emphasis to the task of promoting musical appreciation in those who have neither talent nor ambition for technical musicianship.

Musical exhibitionism. It may be that the personal satisfactions of the sousaphone soloist are so great as completely to outweigh whatever effects his operations may have upon his politely patient listeners. But without discounting the fact that some folk like to be reminded briefly of the ebullience of the proverbial little German band, we should perhaps consider the suitability of much of the group training in musical performance. Particularly in the field of instrumental music, the character of this group training seems to imply a vocational objective. Although this is not always willingly admitted by sponsors of the training, it seems to be indicated in the fact that the pupils who comprise the group are usually classified in such a way that the various instruments in a band or orchestra are usually represented in their customary proportions. If pupils were supposedly getting their training chiefly with a view to its subsequent amateur or leisure uses, it might reasonably be expected that the instruments chosen would be those which are suitable for individual or small-group performance. Pupils who learn to play certain stringed instruments and some of the wind instruments will have some opportunities to use their abilities individually and in small groups for their own enjoyment and perhaps for the pleasure of their fellows. But those whose training has been devoted to the percussion instruments or to the stringed and wind instruments which are appropriately gregarious in character must of necessity be limited in their further use of these instruments or quite insensitive to the feelings of their fellows.

Not many pupils will later be professionally employed as musicians, as specialists in music are presumably well aware. It is sometimes

assumed, however, that no particular harm will be done if as many pupils as possible are encouraged to undertake technical training of the sort which aims at vocation even though many pupils who have the training find no subsequent occasion to use it. Although this sort of training is unquestionably a lot of fun while it lasts, it cannot be depended upon to produce lasting enthusiasm on the part of those who are inevitably dropped by the wayside. To a lesser degree the emphases which are characteristic of group training in instrumental music are somewhat unsatisfactory also in the case of vocal music. The pupil who spends several years as a member of a glee club ordinarily finds a great deal of pleasure in it, but there is little likelihood that he will find it easy to continue after he leaves the school. He may, of course, occasionally encounter a few of his old choral cronies who will co-operate in the rendition of certain musical classics not ordinarily taught in schools. If the performance-training ordinarily provided were limited to those who have enough special talent and positive interest to make probable their continued musical activity, it could be more easily justified.

Particularly in small schools, where there is relatively little probability of having many pupils with exceptional musical talent, the usual emphasis on group choral or instrumental training should be considered also from the standpoint of its influence upon those who listen to the results of it. It seems doubtful whether pupils whose exposure to music is limited to the exuberant but unfinished performances of their fellow pupils are making the best possible expenditure of their time. Judicious use of radio programs, particularly those which have been developed specifically for the schools, and of phonograph recordings is an economical and feasible means of bringing pupils into contact with suitable types of music. Much more important, however, is the advantage of being able to present music of superior quality and to draw flexibly upon a rich and varied store which far exceeds the meager repertoire of a high-school musical group.

Undoubtedly many of the problems and difficulties which have here been mentioned are somewhat accidental and temporary. They result in part from the relatively recent tendency to employ in public schools teachers of music who have at least some slight degree of competence as musicians. This tendency is surely a good thing, and nobody would oppose it who was so unfortunate as to be in school when it was cus-

tomary to have public-school music taught by teachers who supposedly knew something about schools but who obviously neither knew about music nor cared for it. But it has brought into the schools much of the tradition and practice of the private music teacher, whose task it has been to try to make musicians of the children of as many parents as could be encouraged to continue to pay for it. Since many parents are willing to pay only if they have some sort of evidence that the investment is not being wasted, enterprising teachers have found it expedient periodically to provide recitals at which a parent may have the satisfaction of watching his child perform in public if he is willing to listen to the performances of other children whose parents and friends attend for like reasons.² Although it is hardly to be expected that in his adjustment to a secondary-school situation the music teacher should immediately discard the purposes and the practices which have been the stock in trade of the privately employed teacher, it will be most unfortunate if he and those who are responsible for the general direction of secondary schools do not at least recognize the need for a shift in emphasis. Even if the sponsors of music in the secondary school forthrightly attempt to diminish and redirect the present emphasis on training for exhibitionary performance and to stimulate the development of intelligent and positive interest in music on the part of young people generally, they will be handicapped by the consequences of their former practices. For the ordinary citizen, who is conscious of his importance as a taxpayer and his wisdom as a determiner of school policy and yet entirely unaware of the values of appreciation of music, will continue to expect that the music teacher will in short order produce young musicians who at least vigorously go through the motions of musicianship.

The musical experiences which the school provides for its pupils are unsuitably narrow. Its opportunities for training for productive performance, which are ordinarily the chief concern of the music teacher, are restricted to the kinds of instruments or activities which are conventionally useful for public presentation of music. Its provisions for young people who have no need or desire to become performers of music, but who might very appropriately develop insight

² Even the music teachers do not seem to recommend these recitals as excellent means whereby the layman may develop his appreciation of music, possibly because the performances of tyros are not suitable, or possibly because the music teachers are not much concerned with the development of appreciation.

and interests as listeners, are likewise limited. The young amateur may find enjoyment in the use of musical instruments and in a level of musical performance which have no relation to audience standards, because he will not expect to have audiences. The lay listener will have much occasion to listen to many kinds of music which the school does not and cannot produce even through the most inconsiderate exploitation of its own young performers. Particularly if he lives in a city, but even if he dwells on an isolated farm and depends upon the radio, the American of today has very easy access to music in great variety of kinds and qualities. He is by no means limited to the productions of persons in his own school or neighborhood, as he usually was when the traditions of public-school music were being established. If, therefore, the school wishes to develop in him the insights, interests and standards of discriminating taste which will be of some use to him personally and which will serve to lend support to the improvement of music in our national life, it must direct his attention to these common avenues of musical experience.

ART IN THE SECONDARY SCHOOL

The secondary school ordinarily pays its respects to art in courses which are meager and highly restricted. In the general run of small schools instruction and training in art are either entirely lacking or confined to training in drawing and related technical elements of graphic design. Even in many relatively large schools, in which the numbers of art courses offered are sometimes slightly greater, major emphasis is placed chiefly upon specialized technical training in those aspects of the graphic and plastic arts and crafts in which technical performance is largely individual, manual, and easily amenable to treatment in the small studio or shop. For example, the report of the National Survey lists the following art courses offered in a secondary school which is noteworthy for the exceptional character of its art program:³

Art 1 and 2	Art metal 1 and 2
Design	Pottery 1 and 2
Art appreciation	Reed craft 1 and 2
Life drawing 1, 2, and 3	Weaving 1 and 2

³ A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson: *The Program of Studies*. U.S. Office of Education, Bulletin no. 17, 1932. National Survey of Secondary Education, Monograph no. 19, p. 177.

Advertising art 1, 2, and 3	Needlework craft 1 and 2
Art history and criticism	Stage art 1 and 2
Art composition 1 and 2	Textile craft 1 and 2
Sculpture 1 and 2	Wood carving 1 and 2
Clay modeling 1 and 2	Art crafts 1, 2, 3, and 4
Leather work 1 and 2	Decorative arts 1, 2, 3, 4, 5, and 6
Costume design	

In contrast with the poverty-stricken art training available in most schools this is indeed a generous offering. In the minds of some academicians it may seem to be a sinful extravagance, but in comparison with the full gamut of the arts which are significant aspects of our contemporary culture even this exceptionally large offering is scant and sketchy. In addition to being limited chiefly to the graphic and plastic arts which are primarily manual in their technical processes, it is restricted somewhat closely to matters appropriate for the professional or specialist-craftsman, and many matters which are of common concern in the everyday life of the ordinary citizen and in which there is need for the use of artistic competence in moderate measure are neglected. One need not let his eyes rove far to discover in common scenes about him plenteous evidence of the absence of such competence. The domestic architecture — or rather what exists in lieu of architecture — the garish advertising signs and the ill-contrived places for roadside "refreshment," the cluttered display windows of small shops, the dooryard gardens, and even the bizarre costumes with which many otherwise rational human beings seek to adorn themselves: all of these and many more things which come as quickly to mind too clearly show that the studio craftsman is not the only fellow who needs to be interested in the principles of art and their valuable applications in everyday life and common things.

It would be unfair to criticize courses of technical character for their inappropriateness to the needs of the laymen, since they are usually not intended for him. The fact which does merit criticism is the very common failure to make adequate provision whereby his interest and insight in artistic matters and his disposition to make continuing use of them will be increased and improved. Even in many schools which offer courses in "general art" the work is "really designed for the few pupils who have some talent."⁴ Even a good deal of the work that

⁴ Robert S. Hilpert "Art," Part II of *Instruction in Music and Art* U. S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 25, p. 48

has been offered in the guise of general "art appreciation" has been little more than picture study of the standard art classics of Europe prior to the twentieth century. A pupil to whom the school takes pains to give the impression that art is something that took place on the other side of the Atlantic several centuries before his grandfather was born should not be blamed if he later builds an ice-cream bar in the papier-mâché image of a derby hat.

The friends of art sometimes bemoan the typical citizen's apathy toward art, as represented in his failure to support and encourage it and his occasional tendency to impose puritanical restrictions upon the freedom of the serious artist. The layman himself frequently confirms this diagnosis by asserting that art is something that he does not pretend to understand and by implying that anyone who does understand it must be a bit queer. Although this attitude is the consequence of some traditional influences in American culture, its perpetuation is encouraged by a secondary-school program which emphasizes specialized technical training for those few pupils who are assumed to have exceptional aptitude and which makes little or no provision for the different needs of the unexceptional majority.

It is not to be expected that the secondary school can or should attempt to provide technical training preparatory to specialized competence in many of the aspects of art which are important in our contemporary environment. The work of the architect, the sculptor, the dramatist, the portrait painter, the conductor of a symphony orchestra, or the expert in industrial design is not so simple or elementary that it may be adequately prepared for in the high school. However, secondary-school pupils unquestionably have both the capacity and the need for positive interest and intelligent appreciation of the work and contributions of productive artists in these and many other fields. The many practical difficulties which would prevent the school from offering technical training in many arts, even if this training were suitable to the needs of its pupils, need not hinder the school from presenting instruction which will emphasize the development of insight and appreciation. If the secondary school is willing to undertake to provide for American boys and girls of today some instruction in the artistic achievements of ancient Egyptians, Greeks, and Romans, it ought to be able to introduce them even more easily to the arts in contemporary life.

In art, as in music, the training and instruction offered in the secondary school may very appropriately be much increased in scope. Pupils whose artistic talents and interests justify provision of training for productive abilities should not be limited to work in drawing. Other kinds of artistic expression and media are increasingly common, particularly as richly satisfying modes of recreation or avocation. Indeed, if there is soundness in the current pedagogical shibboleth to the effect that we should teach boys and girls to do better those worthwhile things they will do anyhow, we might substitute training in the use of the ubiquitous camera for that in the use of the drawing pencil. Even those pupils whose talents are in no way extraordinary, but whose interests are those of the plodding amateur, deserve a wider choice of opportunities to make a beginning in some art or craft outside the narrow boundaries of conventional scholastic training in drawing. Some of the arts are, of course, so rigorous in their requirements of native talent and advanced technical preparation as to make them quite beyond the reach of most secondary-school pupils. But there are many arts and crafts which are certainly no more difficult than the training in drawing which schools now so commonly provide. Though schools which undertake to give a more varied offering may have some difficulty in finding teachers who are already well equipped to give training in much besides drawing, this handicap need not be more than temporary.

There is even greater need for expansion in the school's provision of experiences suitable for the non-practitioner. His interests and insights should be so broad as to include not merely the relatively few phases of art in which even the best school will provide technical training, but also the multiform aspects of art in our contemporary civilization. The school gives little indication that it recognizes the sweeping extent of our development of art as an intrinsic element in modern life. The fact that the school sometimes calls attention to old European cathedrals suggests that it considers art to be something more than the enterprise and the product of the individual craftsman in a studio. But its neglect of art as an element in our production and beautification of common things reflects a very myopic view of the significance of art. It is somewhat promising to see that, with some assistance from the producers of motion pictures, the schools are in some instances beginning to give their pupils instruction intended to develop appreciation

of the movies. Certainly the persistent devotion with which youngsters behold the cinema, and the lack of discrimination with which they frequently select the pictures to be seen, suggest that the school may help them considerably by seeking to improve their standards of taste and their appreciation of good motion pictures. It is, however, significant that the task of developing understanding of the art of the cinema has usually been assumed by teachers of English and not by teachers of art. Possibly the teachers who are at least nominally responsible for art are so firmly biased in favor of narrow emphasis upon technical training in drawing and the elements of graphic design which are instrumental to it that we may hardly expect that they will soon attempt to develop those aspects of education in the arts which they now characteristically neglect. However, even if it should become necessary to utilize other sponsors for it, the secondary school may well seek to provide for its young people wider choice of types of training both for talented pupils and for ordinary amateur practitioners, and in addition a generous program of instruction whereby all pupils may develop understanding and interest in the nature of the arts and appreciation of their significance in contemporary life.

PROBLEMS COMMON TO THE VOCATIONS AND THE ARTS

Possibly because they have all come into the secondary-school program somewhat recently and because they have usually been offered by teachers whose backgrounds and traditions are not academic, the vocational and art courses are in many respects alike, and, in general, in sharp contrast with conventional academic work. For the most part the vocationist-artist group is concerned primarily, sometimes narrowly, with obvious and immediate practicalities. The group exaggerates the value and need of specific performance skills and the feasibility of producing them and neglects or disparages the values of increased knowledge and interest. Teachers of academic subjects, on the other hand, deal for the most part in knowledge or its abstract symbols, and seem to care very little about the relation of that knowledge to the pupil or to the world in which he lives. In fact, the academician often has special preference for knowledge as far removed as possible from any connection with the lives of the rank and file of

present-day American citizens. Both of these extremes are bad, and neither is a justifiable excuse for its opposite. What is needed is a discriminating synthesis of these two extremes ⁵

With respect to the arts and vocations particularly there is urgent need for broadly inclusive courses of instruction to develop insights and interests needed by all young citizens. Although such instruction can be justified solely in terms of its intrinsic contributions to the individual and to society, it is potentially instrumental also in providing a basis for better choice of technical training. The pupil who has at least an introductory acquaintance with the nature and significance of the vocations and arts which are so vital and which bulk so large in our culture, and with the activities, circumstances, personal characteristics and contributions of the people who engage in them directly, is thereby enabled to act more competently and responsibly as a citizen, to increase the range and intensity of his personal satisfactions, and to select more appropriately the avenues in which he may develop and use specialized technical ability.

In this connection we should perhaps consider a claim which is sometimes made by the advocates of specialized technical training. It is frequently asserted that general instruction for the development of understanding and appreciation are not only unnecessary, but definitely unsuitable, since direct participation in practical activities themselves is the best and perhaps the only way whereby they can be truly appreciated. For example, so the argument runs, the most effective way of coming to appreciate what it means to play a violin, or to operate a lathe, or to write a poem, or to solve a simultaneous equation is actually to do these things. (Presumably the principle applies also to such things as acting in the movies, buying a farm, being maimed in battle, becoming a parent, going to jail, serving as a physician, or working in a mine.) There is no disputing this fact, as anyone who has had first-hand experience in any of these activities can readily testify. But its educational implications are not so simple. Even in the course of a long life an individual could not possibly have immediate experiences in more than a trivially small number of the

⁵ In this general contrast of academic and applied subjects it should not be assumed that all of the conventional academic subjects are customarily concerned with the development of knowledge. It is elsewhere pointed out that in mathematics and foreign-language instruction particularly the emphasis is upon the development of performance techniques rather than understanding and appreciation.

occupations of men. If during the relatively short period of his formal schooling a pupil is expected to develop his appreciations of vocations and the arts chiefly through his participation in a technical-training course the scope of his opportunities is made ridiculously small. Specifically, the pupil who undertakes to learn how to play the sousaphone is cultivating his appreciations with respect to the playing of the sousaphone, but he is using for that purpose a great many hours which might otherwise be devoted to the development of other fields of activity. For, as the offerings in the arts and vocations are now organized in the secondary school, the person who devotes himself to one field practically cuts himself off from educational contacts with the few others which are represented in the total program. And the pupil who has no need or appropriate aptitude for any of the few types of specialized training which are offered is thus cut off from educational contact with any of them. The time-consuming character of a training course which adequately develops specialized technical competence is enough to disqualify it as a profitable experience for the non-specialist, regardless of other important considerations.

A further objection to the use of training courses in practical activities for both specialists and non-specialists is that the participation of pupils who lack either special aptitude or special need for technical training inevitably interferes with the maintenance of high standards of performance. The customary practice in which secondary schools encourage all pupils who seem to need some sort of practical training to distribute themselves among the relatively few training courses which are offered produces results which would be very disturbing if they were not so common that teachers have come to accept them. It is not at all unusual to observe classes in which a large amount of the teacher's time and effort is used in trying to keep at work pupils who apparently do not even intend to develop a useful degree of competence and whose presence interferes with the progress of other pupils.

Cumbersome organization of many applied subjects. The usefulness of many courses in the vocations and the arts is seriously limited by their organization in large and inflexible curricular units. For example, the conventional course in vocational agriculture is an extensive composite of instruction in a variety of fields of fact, and of training in a variety of specialized abilities, all of which are assumed to be useful to a person who is to enter an agricultural occupation.

It is all very well for the prospective farmer to learn something of markets and marketing; soils and their management, farm animals and their care; farm buildings and their construction, maintenance, and efficient use, plants and their culture; insects and pest control; farm costs and their accounting; and a host of other related matters. But the pupil who has no expectation of becoming a farmer but who needs specialized instruction or training in one or only a few of the many fields comprised in the course in agriculture is cut off from this training unless he attempts also to take everything else which is contained in the composite course. A similar limitation hinders the pupil who has no need for more than a part of the full course in home economics, or in building construction, or in art. If these large and unwieldy training courses could be divided into their specialized elements and made available in much smaller curricular units, they would be much more flexibly adaptable to the different needs of individual pupils, and pupils who require the full curriculum at present would still have ready access to it.

The conventional organization of technical or applied courses in units a year or a semester in length also has its disadvantages. If the secondary school actually seeks to provide opportunities whereby pupils may discover through actual trial the fields of activity in which they may profitably continue to develop special abilities, it ought not to arrange its offerings so as to cause a pupil ordinarily to spend a year or even a semester in every training course which he undertakes. In many instances only a few weeks of work are enough to demonstrate both to a pupil and to his teachers that he should not continue in it longer. It is not likely that any given amount of time will serve suitably as a period of trial and discovery for all pupils in various types of technical courses, so that even short-unit courses offered particularly as opportunities for exploratory and try-out purposes are somewhat unsuitable. If, however, opportunities for specialized technical training were more flexibly administered, so that pupils would not have to begin the work in September and continue until the end of the fixed term, the school's service in enabling pupils to discover and develop their individual aptitudes would be greatly improved.

Fundamentally, the secondary school's conventional attempts to deal with both music and art are confused and hindered by the fact that training in both of these fields is in the hands of people whose own

traditions are those of the specializing practitioner. Consequently the chief aim of their work is to produce tangible or readily observable products, and the needs of the talented pupil are sometimes distorted, the different needs of the amateur are somewhat neglected, and the distinctive needs of the laymen are for the most part ignored. If the secondary school is to remedy these defects appropriately, it must find solutions for the problems which are briefly summarized in the following questions.

1. *By what means can the school identify individuals whose special and superior aptitudes in particular phases of music or the arts make it appropriate to provide for them suitable opportunities for specialized technical training for skilled competence as performers, and how can it insure for the individual pupil the particular type of training appropriate to his own needs?* Particularly in the field of music this problem can be partially solved by diminished emphasis upon exhibitionary performances and the correlative tendency to disregard the need of the individual pupil. In the arts there is greater need for more varied types of work in a greater variety of media. In both fields there is at present a considerable tendency to give training to those pupils who are already known to have and to have developed to some degree special talent for the work. The school now has little way of knowing how many other pupils there may be who have exceptional aptitude but who have had no opportunity to discover it.
2. *What types of additional training should the secondary school offer to the pupil who does not aspire to become a producer for the benefit of others and who does not necessarily seek to develop a high level of expertness, but who can get much personal enjoyment from music or art as a hobby?* This problem suggests the need of greater tolerance on the part of expert practitioners for certain levels of skill and certain types of activity which they now look upon as somewhat unrespectable. It suggests also that more attention be given to the things which boys and girls find fun in doing.
3. *By what means can the secondary school develop a program of instruction or other educational experience wherein the young layman may develop the insights and appreciations which will serve to increase his enjoyment and discrimination as a "consumer" of music and art in their manifold applications in contemporary life?* Here, particularly, the secondary school has the least background of experience upon which to base its experimentation. By the same token, here is its most pressing need. It must not only learn to discriminate more clearly between technical training for proficiency and educative experience to develop lay intelligence and appreciation, it must also use considerable imagination and ingenuity in devising effective methods of developing understanding

and appreciation of a field much broader than it now includes in its program.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Scrutinize in detail the particular kinds of educational experiences in art and in music which a secondary school provides for its pupils, considering both pupils who are actually enrolled in art or music courses and pupils not so enrolled, and identify separately the experiences which seem reasonably appropriate to the needs of the layman and the experiences which are more appropriate to the needs of the technical producer. On the basis of this examination suggest appropriate changes in the school's program.
2. Try to make a broad and inclusive survey of the various arts other than music, drawing and graphic design, which have an important place in our contemporary civilization. Select those which the well-informed should know about and find interesting.
3. Assuming that the secondary school cannot do very effective work in the development of appreciation of the various arts until it shall have devised suitable methods of teaching, examine the methods used by art museums, radio broadcasting companies, civic art and music organizations, and other agencies which seek to develop understanding and favorable interests in the arts. Using these methods as sources of suggestion, work out tentatively a number of procedures which can be used by the school which attempts to experiment with new methods of teaching for appreciation.
4. It is reasonable to suppose that, even in a school which offers substantial opportunities for pupils to develop their individual talents in art or in music, there are many pupils who do not know whether or not they have any high degree of potential aptitude for such training. This applies, of course, particularly to pupils who do not enroll for training in art or music. See what you can do to work out a feasible plan whereby the special talents of pupils can be discovered, preferably in advance of the time when they may enroll for special training. Possibly some standardized tests can be used, but it will be best to utilize many other sources of evidence.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF MUSIC AND ART IN SECONDARY SCHOOLS

Music

In contrast with fields of academic instruction, public-school music has not been the subject for any substantial amount of printed publication. Most of the relatively few books here suggested are only indirectly applicable to music in the schools. Kwalwasser's work is an exception. It is written to give direct guidance to the teacher of music. It is attractively prepared and

notable for its attempt to provide for music training enough perspective to counteract the traditional overemphasis on technical and academic matters. The history of public-school music by Birge is a simple account and explanation of the evolution of training in music. Mursell's extended discussion of certain potential values of music is much less factual than Kwalwasser's book and much less concerned with the possibilities of music in the enrichment of our national life than is the work by Zanzig, who attempts a comprehensive analysis of what people can do with music and what music can do for them. The National Society's yearbook on Music is much less substantial than most of its other publications, although it may serve fairly well to illustrate the nature of contemporary thought in this field. The brief report by Pierce for the National Survey is useful in indicating typical practice in secondary schools throughout the country. The summaries and bibliographies by More and Whitley in the Review of Educational Research will help one to find more specialized materials which may be appropriate to one's own personal interests.

Birge, Edward Bailey: *History of Public School Music in the United States*. Boston. Oliver Ditson Co., 1928. 296 p.

Kwalwasser, Jacob: *Problems in Public School Music*. New York: M. Witmark & Sons, 1932. 160 p.

Kwalwasser, Jacob, and others: "Research in High School Music," Chapter XIX of "The Development of the High School Curriculum," *Sixth Yearbook* of the Department of Superintendence of the National Education Association, 1928, pp 383-96.

More, Grace Van Dyke: "Music," *Review of Educational Research*, 2:66, 92 (February, 1932).

Mursell, James L.: *Human Values in Music Education*. New York: Silver, Burdett & Co., 1934. 388 p.

"Music in Secondary Schools." U S. Bureau of Education Bulletin, 1917, no. 49. 37 p.

National Society for the Study of Education: "Music Education." *Thirty-Fifth Yearbook*, Part II. Bloomington, Ill.: Public School Publishing Co., 1936. 260 p.

Pierce, Anne E., and Hilpert, Robert S.: *Instruction in Music and Art*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 25. 68 p.

Whitley, Mary T.: "Music," *Review of Educational Research*, 4:501-02, 539-40 (December, 1934).

Zanzig, Augustus: *Music in American Life, Present and Future*. New York: Oxford University Press, 1932. 560 p.

Art

The dearth of materials on art in the schools is similar to that in the field of music. The book by Whitford is generous in scope, and provides a very satisfactory general introduction to various aspects of art education. The title of the book edited by Rusk is somewhat misleading, since it is actually a series of essays dealing not merely with matters of method, but also with other phases and problems in the field. Somewhat less inclusive than Whitford, and more directly concerned with the work of the art teacher is the book by Mathias. Keppel and Duffus present an interesting exposition of the place and values of the arts. Their book serves well to suggest something of the breadth of interest which should be represented in the program of the secondary school. The monograph by Kintner is somewhat technical in character, although special study of it may be profitable to persons particularly interested in this field. The book by Winslow is also limited in its scope; it is a practical, informative manual intended chiefly for art teachers. Garrison's brief summary and bibliography in the *Review of Educational Research* will be a convenient source of detailed reference for those who wish to make special study of art education.

Garrison, S. C.: "Fine Arts," *Review of Educational Research*, 4:498-500, 536-39 (December, 1934).

Keppel, Frederick P., and Duffus, R. L.: *The Arts in American Life*. New York: McGraw-Hill Book Co., 1933. 227 p.

Kintner, Madeline: *The Measurement of Artistic Abilities*. New York: Psychological Corporation, 1933. 90 p.

Mathias, Margaret E.: *The Teaching of Art*. New York: Charles Scribner's Sons, 1932. 356 p.

Pierce, Anne E., and Hilpert, Robert S.: *Instruction in Music and Art*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 25. 68 p.

Rusk, William S. (Editor): *Methods of Teaching the Fine Arts*. Chapel Hill, N.C.: University of North Carolina, 1935. 220 p.

Whitford, William G.: *An Introduction to Art Education*. New York: D. Appleton Co., 1929. 337 p.

Winslow, Leon L.: *The Organisation and Teaching of Art*. Baltimore: Warwick & York, 1928. 243 p.

MISCELLANEOUS SUPPLEMENTARY ACTIVITIES AND SERVICES

For a variety of reasons the regular program of courses in the typical secondary school is by no means its only avenue of educational endeavor. With the passing of time this program has been augmented or surrounded with a varied and somewhat less orderly array of activities and agencies. In the minds of some persons, pupils, teachers, and members of the lay community as well, these activities are much more important than the regular instructional program. Their reasons for existence are even more various, and sometimes more difficult to discern than are those of many subjects of instruction. Many of them bear no particular relationship to one another. They are lumped together here chiefly for convenience.

The reader should be warned that the collection is by no means complete. It would be a tedious and not particularly significant task to try to consider all the supplementary activities in which some secondary schools engage. No attempt will be made to examine exhaustively the activities which are selected for consideration, but certain problems which seem to merit emphasis will be mentioned briefly.

PHYSICAL TRAINING AND HEALTH SERVICE

Health education, as it is somewhat optimistically designated in the typical secondary school, suffers no less than academic subjects from traditional encumbrances. Its proper status and function are by no means clear. Until very recently secondary schools generally offered little opportunity for the improvement of the pupil's physical condition except gymnastic exercises and physically competitive games and contests. These activities were very similar to the types of training offered in semi-civilized countries in which medical science and modern health services are lacking. All pupils were urged, if not actually required, to participate in gymnastic exercises or athletic sports involving

strenuous physical exertion. Educators sometimes bewailed the fact that it was difficult to get some pupils to participate in these rigorous activities. In some institutions, however, prescription of this physical training was applied indiscriminately, and a pupil could escape only by getting a physician to state that his deficient physical condition would not permit participation. In other words, the type of training offered was such that only those of vigorous physical constitution could participate in it with reasonable safety and those who needed better physical health were fortunate if they could avoid it. It does not seem unfair to say that in offering such a "health program" the schools were closely in line with the practices of the purveyors of patent medicines. In any case, the kinds of health treatments prescribed by the schools were decidedly different from those commonly employed by reputable physicians and other professional specialists in health service.

Athletic spectacles. Actually, these athletic enterprises frequently were not intended to minister to health. They were used rather to provide stimulating spectacles for the edification of thrill-seeking folk who through weakness or wisdom prefer to indulge in athletics vicariously. This purpose has frequently been attained quite successfully, although there are some persons who wonder whether the provision of such entertainment is a wise expenditure of the material and human resources of a secondary school. In passing, it may be noted that this particular problem is gradually being solved. Although the sponsors of these athletic spectacles have been exceedingly skillful and persistent in attempting to provide the best athletic talent for their public entertainments and to give it the remuneration which it deserves, they have frequently been handicapped by their academic colleagues. Consequently both the promoters and the cash customers of the athletic entertainment business have begun to realize that it can be more satisfactorily carried on as an independent enterprise. It seems probable that in the future the secondary school will not be expected to entertain the followers of athletic sports. In fact, the schools will scarcely be able to compete with the professional sportsmen even if they attempt to do so.

Preparation for leisure. In considering the athletic program without particular reference to health training, the possibility of developing interests and initial proficiency in activities to be carried on for their

own sake deserves attention. It is commonly assumed that individuals should cultivate as permanent hobbies certain activities involving physical exercise. The group games commonly emphasized in secondary schools are believed by some to serve this end. However, as American life is organized at present, relatively few adults find it desirable or practicable to indulge permanently in these activities. Most of these games require considerable numbers of players and relatively expensive physical equipment. Even if a broker feels inspired some afternoon to indulge in a friendly game of football it is unlikely that he will be able to assemble twenty-one others who are ready to co-operate with him. Furthermore, the athletic sports of the secondary school are so vigorous and elemental that adults are commonly not disposed to indulge in them. There are, however, many activities involving satisfying and healthful physical exercise which probably deserve greater attention than they now receive. If the secondary school is obligated to offer opportunities for the development of interest and proficiency in activities of an athletic nature, a varied program of individual activities such as tennis, walking, golf, dancing, and swimming might be easier to justify than the present emphasis upon baseball, basketball, and football games. The National Survey shows that the most frequently stated objective in eighteen recent courses of study in physical education is "to teach games and exercises that will furnish proper and enjoyable recreation for leisure in later life."¹ However, in smaller secondary schools particularly, large-group games are offered in the majority of cases, and individualized or small-group activities like tennis, horseshoes, golf, dancing, are not yet as common as they might be.² These predominantly physical activities are not primarily to be justified as means of physical development or health service, nor is it certain that a school is the most suitable agency for fostering them. But they seem to have much greater worth than the large-group sports.

Growth of remedial health service. It is only very recently that the secondary schools have begun to provide, in part at least, modern types of health service and health instruction. Since 1920 many schools have begun to utilize the services of physicians and nurses and

¹ P. Roy Brummell. *Health Work and Physical Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 28, p. 69.

² Emery N. Ferriss and others. *The Smaller Secondary Schools*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 6, p. 155.

to give to their pupils some of the diagnostic and remedial service which is expected of a health clinic. At present much of this service is decidedly sketchy and superficial. Physical examinations are made infrequently, in many cases only once during the pupil's entire secondary-school career. The examinations are usually limited to the "eyes, throat, teeth, ears, nose, heart, and lungs."³ Very commonly no attempt is made to use the information resulting from these examinations. A few schools provide more comprehensive health service which permits pupils to have thorough diagnosis and remedial treatment related to their needs. If the school is to undertake to furnish meritorious health service, it must increasingly adopt practices modeled after those used in hospitals, clinics, and other recognized health-service agencies.

Sketchy character of health instruction. With reference to health instruction, as distinguished from direct health service, the situation in the secondary schools is also rather sketchy and confused. For example, the National Survey shows that all sorts of instruction are being given by all sorts of teachers. In reporting on the instruction being given in secondary schools which are supposed to be doing notable work in this field, Brammell makes such statements as these:⁴ "More than half (248) of the schools indicate that they have outlines of study for health instruction. A third of the schools reporting definite outlines, however, state that the outlines are not in a form available to persons interested in examining them. It may be that some of them exist only in the minds of principals or other persons connected with the schools."

Brammell reports that, although health instruction is more commonly given by physical education teachers, science teachers, nurses, and physicians, many of these supposedly superior programs of instruction are delegated to such persons as teachers of social studies, English, home economics, mathematics, and commercial studies, or to shop instructors, home-room teachers, and high-school principals. Under the conditions suggested by these facts it is to be expected that the character and quality of special instruction in health matters will be in many respects mediocre. Undoubtedly, much of this instruction is little more than propaganda. For example, partisan pressure has influenced the schools frequently to indoctrinate pupils with

³ P Roy Brammell: *Op cit.*, p. 93.

⁴ *Ibid.*, pp. 30-31

extravagant notions concerning the physiological and social effects of alcohol and tobacco. For some obscure reason instruction with reference to diet has often tended to discourage the consumption of meat and at the same time to promote somewhat uncritically the use of dairy products. Just why the dairymen should profit at the expense of the cattlemen is hard to understand when there is no apparent scientific evidence to indicate that cheese is preferable to meat from a dietary standpoint.

Similarly, special instruction with reference to sex has frequently been attempted with dubious effect. The schools, having some reason to believe that adolescents are in need of more adequate and appropriate information than they ordinarily obtain from other sources, have occasionally undertaken with the best intentions to provide sex instruction for their pupils. But probably for much the same reasons that other agencies have been handicapped, the kind of sex instruction usually offered has served chiefly to disturb some pupils, to amuse others, and to convince most of them that their teachers were either unwilling or too ignorant to deal with sex intelligently.

Probable causes of inadequate health instruction. Many of these difficulties are no doubt due to the transition from a type of physical education which was little more than gymnastic training and athletic coaching to a program which will more directly minister to the health needs of all pupils. Gymnasts and athletes can scarcely be expected immediately to produce either good health service or intelligent health instruction, and many of the academic specialists who have been drafted to help them can do little better. Both the direct health services and the special instruction usually provided in secondary schools seem to be decidedly inadequate. But it may be said in extenuation that the comparative recency of the enterprise, the meager equipment ordinarily available in the schools, the lack of competent professional personnel, and the traditional conception of the school's major functions all hinder the development of adequate health service and health instruction.

Future policy concerning school health service. With these difficulties in mind, it may be well to consider what the school's policy for future development should be. Perhaps a secondary school should not ordinarily be expected to provide any health service. Educators are fond of justifying their willingness to undertake additional responsi-

bilities and extend the school's domain by reference to what is called the "residual function" of the schools. Stated simply, this means that if and when some other institution ceases or fails to provide a necessary service to youth, the school shall forthwith undertake to furnish it. In general, this is not a bad idea (even though its careless application has allowed the schools to pick up plenty of obsolescent rubbish), but, oddly enough, it is not often recognized that this principle should and will work very well in reverse.

Obviously, if the school is ready to absorb responsibilities not satisfactorily discharged elsewhere, it should also be ready to relinquish services which it now attempts to provide and which can be more satisfactorily furnished by other institutions. Health service is a case in point. It may be admitted at the outset that more and better health service is needed than is now provided for young people. But before the schools go very much farther in this direction, certain contemporary conditions and future eventualities should be carefully pondered. Educators should not overlook the fact that we have such institutions as hospitals, health clinics, other semi-public and public institutions and agencies. The character of the material equipment of these agencies, the quality of their professional personnel, and the nature of their predominant purposes make them superior agencies for health service. No person needing health service would choose to go to an excellent school in preference to a hospital or health clinic to get that service; neither would he choose the services of a physical education teacher in preference to those of a physician. These things seem so obvious as to make mention of them almost silly, but they do not seem to be discerned by educators.

The kind of health service which genuine health service agencies have to offer is limited in amount. If it were available generally to all persons, old and young, who need it, few would be willing to accept the inadequate service which a school could offer, and few schools would offer it. But agencies concerned chiefly with health service cannot make it available to all who need it, and thus the schools may seem to be justified in offering health service, inferior though it may be, and in seeking to improve and extend it. It should be remembered, however, that health service must ultimately be paid for out of the resources of the supporting community. Presumably health service of given amount and quality can be administered in health agencies

serving young and old alike just as economically as in schools ministering only to youth. In this connection it has probably been easier to initiate public health service in the schools because they have long had legal access to the public treasury, while health service agencies have been more dependent upon private philanthropy. Hence, school health service, as a temporary expedient for the benefit of youth, probably has some justification. But, unless the schools can wisely expect to provide adequate health service not only for youth but for all members of the community and to supplant entirely other public health agencies, they should plan to relinquish this enterprise. Particularly in the smaller communities, where better health service is needed badly, the attempt of the school to supplant partially or to compete with those who try to serve the health needs of the entire community, inevitably restricts and retards the development of general public health service.

Difficulties in providing good health instruction. The secondary school's failure to give to its pupils adequate health education, as distinguished from health service, is pertinent. The school's traditions, its facilities and its special types of competence, and its generally accepted social obligations all emphasize the dominance of its educational function. Unless and until it administers that function with reasonable adequacy, it may well be cautious about undertaking additional responsibilities for which it is patently ill equipped.

Undoubtedly, one of the reasons why so-called health instruction has often been inadequate is the fact that it is very difficult to determine exactly what knowledge should be designated as "health knowledge." If one were to attempt to enumerate and classify the facts which are pertinent to health one would inevitably draw upon many of the conventional fields in which knowledge is classified. Furthermore, many, if not all, of these health facts are significant not only with reference to health but also to many other aspects of life. Health is not a field of knowledge; it is a quality of living. To bring together all of the items of knowledge which might in the various contingencies of living have reference to health would involve more fields of knowledge than are now included in the secondary-school curriculum. To limit health instruction to the facts which are significant only with reference to health is to exclude most of the knowledge which makes health significant and vitally interesting.

Relation of health to various fields of knowledge. It may be for these reasons that many secondary schools have come to believe that the need for health instruction may be met to a considerable degree by instruction in various fields. For example, the National Survey shows that in large numbers of schools it is definitely recognized that the various biological and physical sciences, home economics, social studies, English, and even courses in agriculture provide opportunities for instruction significantly related to health.⁵ It is possible that the quality and effectiveness of health instruction will be increased through its integration with the several basic subjects of study. For example, special instruction in sex matters is often distorted because it is separated from the ethical, psychological, physiological, and sociological subject matter to which it is normally contiguous. Its validity, its significance, and its relative importance cannot be understood or appreciated unless the learner is aware of the manifold connotations of the particular facts which are directly presented in special sex instruction. Similar weaknesses are inherent in special instruction with reference to diet, sanitation, control of infectious diseases, narcotics, care of the sick, and other matters ordinarily mentioned in specialized instruction in health courses. Presumably the fuller meaning of these things would be much better understood by the pupil if they were presented in broader contexts.

Necessity of special instruction concerning health. Certain phases of contemporary school practice do interfere with the integration of health instruction with other school subjects which might enhance its meaning and usefulness. In the first place, several of the fields of academic study are not fields of factual knowledge chiefly, but rather avenues for technical training.⁶ As long as the linguistic subjects and mathematics, which are considerable parts of the conventional curriculum, are chiefly concerned with the development of special types of proficiency, it is futile to expect that they will make any important additions to the pupil's understanding of health. While the social studies emphasize facts concerning the remote past and neglect facts with reference to the present world, their contributions are restricted. English courses are at present not of much help in this connection. The one field of academic study which now offers any considerable

⁵ P. Roy Brammell *Op cit*, p. 37

⁶ This problem is later discussed more fully See Chapter XV

contribution to pupils' insights with reference to health is natural science, but unfortunately most pupils take few science courses. Hence, although it might be very much better to have pupils get their insights with reference to health in connection with the various fields of knowledge, the present attempt to provide special instruction in health may be very much better for the purpose than the instruction which is now offered in other fields.

For the present at least we must tentatively depend upon special instruction in health. Presumably the problems here will be more easily solved when the entire academic curriculum is subjected to a long delayed and long deserved complete overhauling.

ASSORTED TYPES OF GUIDANCE

During recent years the secondary school has been the object of a zealous campaign of missionary effort in behalf of "guidance." Although the proponents of guidance have differed somewhat in their conceptions of it, they have faithfully urged secondary schools to assume responsibility for guidance as a special function. Consequently, guidance has come to be accepted as something which no up-to-date secondary school can creditably neglect, and many schools are pleased to report that they have programs of guidance in operation even though the activities included are substantially identical with the activities which were carried on by secondary schools before guidance became a word to conjure with.⁷

What is guidance? A few of its advocates seem to look upon it as a general improvement upon or substitute for education. Those who accept this view of it commonly attack or criticize phases of conventional school practice and attempt to show how it might be improved in various particulars. The recommended particulars are collectively designated as guidance. For example, Brewer proposes as guidance a general program of school training in which curricula and instructional procedure are intended to foster and direct desirable living.⁸

⁷ Consider, for example, the character of the professional personnel engaged in guidance activities and the major duties in which they are providing "guidance" as they are shown in Figures 2, 3, 4, and 5 of William C. Reavis: *Programs of Guidance*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 14, pp. 8 ff.

⁸ John M. Brewer: *Education As Guidance*. New York: The Macmillan Co., 1932. 668 p.

Many secondary schools reporting the nature of the guidance programs include therein such matters as the revision of courses of study, the administration of examinations, class instruction in various conventional subjects, health service, and many other phases of the work in typical secondary schools.

Guidance usually has reference to one or more of the following functions: the collection and presentation of information and advice concerning educational or vocational opportunities among which pupils need to be able to make intelligent choices; the systematic study of the pupil's personal characteristics, his school achievement, and his educational and vocational prospects and possibilities in their several inter-relationships; the act of giving counsel and advice to individual pupils in personal interviews; and the provision of occupational placement service for pupils and former pupils. In some schools, particularly those in large cities, elaborate arrangements are provided whereby these functions are carried on by specially designated persons. In others these services are somewhat meagerly administered by persons holding conventional positions as teachers or school officers.

Educational and vocational guidance. In the majority of schools presentation of information about educational and vocational opportunities and provision of personal advice for pupils who ask for it or are presumed to be in need of it are the major phases of work in guidance. The existence of these services is symptomatic of many difficulties and educational maladjustments. Some of these difficulties have their roots in conditions beyond the immediate control of the secondary school and others are consequences actually produced by it. While the secondary school was primarily college-preparatory with reference to its purposes, its pupil population, and its program of courses, the secondary-school pupil had little need for special guidance. Regardless of his personal preferences or his lack of them the pupil could make small use of information upon which to base intelligent choices, for he was not allowed to make many choices in connection with his program of courses in high school. Furthermore, he was presumably destined eventually for one of the professions, so that there was little occasion for choice on the secondary-school level concerning his particular vocation in life. Even those pupils leaving the secondary school before graduation had relatively little need for special provision of vocational information. In a predominantly rural society the youth

usually had manifold opportunities for getting at first hand ample information about the various occupations which would normally be open to him. In these circumstances any attempt by the school to provide special information concerning occupations would have been redundant.

Complexities of school life. The entire complexion of these matters has changed markedly. The purposes of the secondary school have become so varied that even the authorities responsible for the school's direction are uncertain about what these purposes are. Although the secondary-school population is still somewhat select, it is so heterogeneous a group in ability and ambition in life as to impose upon the school the necessity for offering a varied program of courses. And the popularization of the elective system confronts the pupil with an array of curricular alternatives which would sadly overtax the pupil's judgment, even if he knew in advance what the alternatives were. This particular difficulty is aggravated by the fact that there is so little continuity and similarity even among courses in the same subject fields that previous experience with one subject gives little foretaste of the nature of what is still to come. For example, a pupil who has found algebra interesting and manageable may have gained from algebra no more information about geometry than about counterpoint. Furthermore, the potential range of occupations and their specialized character have increased tremendously, and the circumstances of modern life make many of them remote and unobservable.

In other words, all sorts of pupils are in secondary schools for all sorts of reasons and lack of reasons; they are expected to make choices of courses concerning which they know little or nothing, and to plan their work in relation to occupations about which they know less. It is no wonder that a few people at least have clamored persistently in behalf of guidance.

The advocates of guidance have sought, among other things, to assist pupils in choosing and planning their individual programs of subsequent formal education. This assistance has usually had reference at least to the selection of secondary-school subjects appropriate to the pupil's abilities and interests, and in some instances to plans for schooling beyond the high-school level. To provide such assistance is obviously no mean task. It requires that the person furnishing the necessary information be intelligent concerning the broad scope of

educational opportunities and their particular details. If any attempt is made to influence or direct the pupil's planning of his subsequent education, it is also essential that complete and accurate data concerning the pupil's abilities, aptitudes, and prior attainments be considered. Thorough mastery and effective use of these two types of information — facts with reference to the details of potential educational opportunities and facts with reference to the pupil — is in itself a large task.

Courses in occupations. In many secondary schools special courses are offered as a means of providing a survey of occupations. Offered ordinarily in the ninth grade, these courses usually occupy one semester or its equivalent. Authorities on guidance suggest that these courses should contribute chiefly to the attainment of two objectives, cultural appreciation of the nature and significance of vocational life, and adequate information to aid the pupil in making intelligent choice of his own prospective calling. In actual practice considerable emphasis is given to the second of these objectives, and pupils in the courses are encouraged to make special study of the vocations in which they happen at the time to be interested. Since a single textbook on occupations is commonly the chief source of factual information, the amount of information bearing on each general occupational field is necessarily limited to what can be presented in a few pages.⁹

A course of this sort is a very meager thing. It cannot possibly supply more than a few very partial and sketchy notions concerning the rich and varied field which it purports to represent. There is a possibility that the tendency to encourage pupils in the ninth grade to make even tentative vocational decisions on such scant foundation of knowledge is actually harmful. These considerations provide some warrant for the belief that an occupations course of this nature is either a waste of time or an actual detriment which should be eliminated. Even if one agrees with these criticisms, it does not necessarily follow that the elimination of this particular type of course disposes of the educational problem of which it is the symbol. A little knowledge of vocations may be a dangerous foundation for immediate vocational choice, but a great deal of knowledge of occupations, with or without immediate choice, may be desirable. It has been suggested elsewhere

⁹ Leonard V. Koos and Grayson N. Kefauver "Information Through the Course in Occupations," chap. IV of *Guidance in Secondary Schools*. New York: The Macmillan Co., 1932, pp. 71-110.

that, as a supplement or alternative to conventional vocational training in the secondary school, instruction is to be desired which will give youth useful insights and appreciations with reference to the nature and values of the work which is done in the world today.¹⁰ Presumably this instruction would require a substantial portion of the total curricular program of the secondary school.¹¹ The attempt in many schools to supply at least partially the need for appreciation of the arts and techniques which are such important aspects of contemporary civilization is probably more significant as a symptom of need than as an adequate means of meeting it. It is to be hoped that the deficiencies of the conventional course in occupations will not serve to discredit subsequent endeavors to furnish more suitable instruction.

Exploratory courses. Somewhat related to the occupations course in function, but decidedly different from it in actual operation, is the exploratory course. Pioneer junior high schools in particular asserted that the school should offer "try-out" courses in which the pupil might have opportunity to reveal to himself and to others his aptitude or lack of aptitude for particular types of training or vocational activity. Many schools have actually offered a number of courses specifically designated as exploratory. Very often these courses were of the omnibus variety. For example, a "general shop" course would frequently include introductory samples of practical work with the tools and materials used in woodworking, sheet metal work, printing, automobile mechanics, and perhaps plumbing, and a pupil taking the course would be expected to try his hand serially at most of these samples. Omnibus courses in foreign language were also attempted in some schools, somewhat temporarily. The general language courses were intended to demonstrate a pupil's aptitude for training in particular foreign languages, and also, in order to make the exploratory experience intrinsically valuable, to provide information concerning the general nature and significance of language in relation to civilization and the character and customs of the peoples whose languages are studied. Obviously these two purposes are discordant, for a pupil's success or lack of success in a course which is informational rather than technical in character is not a valid sampling of the predominantly technical

¹⁰ See Chapter XI.

¹¹ In an improved educational program instruction of this character might well occupy approximately one fourth of the program of "basic constants." See Chapter XIX.

courses which are usually offered in departments of foreign languages. It is not surprising, then, that pupils' attainments in general language courses are not satisfactory demonstrations of aptitude for further training in particular foreign languages. However, the informational type of course may have considerable value as an element in general education for all pupils, regardless of their aptitudes for linguistic training or their participation in it.

Weaknesses of exploratory courses. General exploratory courses have for the most part been offered in relation to the practical arts training available in certain junior high schools.¹² Significantly, they are usually confined to the junior high school and they seem to attract less attention as the years pass. This may be due to the fact that, irrespective of their intrinsic educational values, exploratory courses of the omnibus type are somewhat unwieldy. For example, the boy who is interested in the use of woodworking tools may be unable or not disposed to enroll for a general shop course in which he is expected to try a half-dozen other practical skills and consume a semester or a year in the process. For some reason or other, years and semesters are looked upon by school authorities as indivisible units. If it has occurred to them to permit pupils to engage in courses less than a semester in duration, the consequent complications in scholastic book-keeping have apparently discouraged them from doing it. If a pupil might begin a course of training with the purpose of discovering his aptitude for the training and with the understanding that this purpose might be served well by discontinuing it as soon as his lack of aptitude is apparent, there are many courses in the conventional secondary school which would serve admirably as exploratory courses. Particularly in those subjects in which specialized technical proficiency is a major objective and which necessarily require extended practice for successful achievement, pupils who lack special aptitude for such subjects should be permitted to drop them as soon as they give evidence of inaptitude. It is unfortunate that a pupil who is wise enough to give up a bad job before the calendar releases him is suspected of academic turpitude, even though pupils who are less apt than he are given "credit" for being faithful — and futile — until the end.

¹² Leonard V. Koos and Grayson N. Kefauver: "Information Through Exploratory Courses," chap. V of *Guidance in Secondary Schools*. New York: The Macmillan Co., 1932, pp. 111-36.

In the light of all these considerations it seems probable that the special exploratory course, like the course in occupations, is most significant as a symptom of a need which might be met at least partially by making a few changes in the existing program of the schools. Particularly in practical and technical courses in which specialized skills are the objectives and in which there is little value for the pupil or for anyone else unless the pupil has marked aptitude, it would seem to be not only feasible but desirable to permit and even to encourage some pupils to begin courses with the expectation that they will not even be allowed to continue in them beyond the point at which they are demonstrably unsuited to the work, regardless of the academic calendar or other irrelevancies. If school authorities really desire to emphasize the discovery of personal aptitudes through exploratory experience, they may do so without greatly disturbing or adding to the conventional offering of courses, provided they are willing to assume that the education of the pupil is of more importance than the fixity of the academic bookkeeping system. This is true, of course, of the use of flexible operation of existing courses for purposes of educational exploration. For purposes of vocational try-out, particularly with reference to those vocations for which the school provides no special training in formally organized courses, the school which seriously undertakes to give pupils opportunities for exploration will probably find it necessary to arrange means whereby individuals may have some genuine contact with occupational life outside the school. Such opportunities are not often attempted in secondary schools, but they offer fruitful possibilities for experimentation.

Personal counseling. In the minds of many persons not intimately acquainted with the details of guidance, and indeed in the conceptions of some who are assumed to be authorities, the major business of guidance is the matter of personal counseling. It is inevitable, particularly in large secondary schools, that many pupils will be confronted with educational problems or difficulties which require immediate, individual assistance. Many of these matters can and should be dealt with by the pupil's regular teachers, but some of them are so related to the various aspects of the school program that they require the attention of one whose interests and knowledge are not restricted to a particular department of instruction. In small schools the principal is well situated to deal with such problems; in larger schools it is

necessary and economical to delegate the task to persons specializing in this work. Again, certain pupils may suffer from relatively permanent psychological or emotional maladjustments which for diagnosis and remedial treatment require the personal attention of exceptionally competent specialists. Here the small school is decidedly at a disadvantage, for although it presumably has its share of persons whose serious maladjustments require expert attention, it is seldom blessed with the services of a competent mental hygienist. Even the large school is seldom provided with expert service of this sort, although guidance counselors, whose competence in such matters is likely to be rather sketchy, are expected frequently to do what they can about it.

Difficulties in personal counseling. One of the major difficulties in providing efficient counseling service in a large secondary school is the fact that counseling must in the nature of things be carried on by many people in many different types of positions. Instructors in various subjects, homeroom teachers, special counselors, visiting teachers, class advisers, and administrative officers all have parts in the work. Each of these types of persons is strategically situated to provide a relatively distinct type of service, but the co-ordination of their work is difficult. The difficulty is aggravated by the fact that the pupil needing help very often does not know that he needs it, or he does not know what kind of help he needs, or from whom he should get it. If he understood these things, he probably would not require the attention of a personal counselor. Hence, personal counseling is almost inevitably a sort of catch-as-catch-can affair, and a guidance specialist is in danger of having most of his time consumed in personal counseling which might be done just as well or better by others.

Another difficulty, perhaps a potential danger, is the fact that personal counseling may tend to discourage personal responsibility and independence. Authorities on guidance are not unaware of the danger, for they take pains to insist that guidance should lead to "self-guidance" and that the counselor should avoid paternalism. If the guidance counselor is successful in the sense that he helps the pupil to solve a perplexing problem or to surmount a painful difficulty, his success will be harmful in so far as it encourages the pupil later on similar occasions to get assistance from others when he might better be learning to use his own resources. Since secondary schools are not now plentifully supplied with personal counselors, this contingency

is not very serious, but it should not be ignored in considering the advisability of extending counseling service.

Need for counseling caused by defects in the educational program. To a considerable degree personal counseling, like other aspects of guidance, is made necessary by possible defects and shortcomings in the educational program of the school. Koos and Kefauver report that deans of boys and of girls, homeroom advisers and other counselors are very frequently concerned with such matters as discipline, social conduct, the quality of pupils' work, and the planning of individual programs of study.¹³ Those who are impressed with the fact that such matters as personal ethics and the moral concepts which are basic to right conduct are somewhat neglected in the formal program of instruction may be neither surprised nor pleased to find that this instruction must now be supplied partially, casually, and tardily by special counselors. Furthermore, the fact that these special counselors have to devote so much attention to guidance with reference to the quality and character of the pupil's school work supports the belief that all is not well with the regular program of instruction. Special counseling is unquestionably a useful palliative, but a palliative is scarcely to be used in preference to remedies which get at the root of the matter. Development of a more rational curricular program would reduce the pupil's need for counseling.

Systematic study of the pupil. The modern secondary school must have some means of collecting and studying comprehensive data concerning the pupil's personal characteristics and the educative effects of his school experience. The increasing heterogeneity of secondary-school pupils and the common attempt to provide diversified educational opportunities in relation to the needs of pupils demand that there be continuous and systematic study of each pupil's personal qualities and educational achievements. Although it is both desirable and feasible for the pupil's teachers to make some study of certain aspects of his capacities and achievements, in order to determine needed instructional adjustments and to assess the effects produced by them, there must also be some attempt to obtain and consider a complete record of the accessible facts about each pupil and his education.

Fortunately research workers in education and in allied psychologi-

¹³ *Op. cit.*, pp. 516, 534, and 546.

cal and sociological fields are developing a rich store of special instruments and techniques for personal and educational diagnosis. Although many of diagnostic measures are still somewhat unreliable and of dubious validity, most schools would be justified in making more use of them on a systematic basis. During recent years many local school authorities have been persuaded to inaugurate "testing programs" in their schools. In many cases these so-called programs have been little more than sporadic gestures. Having in mind no particular needs to be served through testing, school officials caused standardized tests to be given to their pupils. The tests, after having been carefully scored according to directions furnished by the publisher, were often laid to rest on a shelf in the principal's office without having produced any useful results other than unctuous satisfaction in being "scientific and up-to-date." Such futile use of tests has undoubtedly tended somewhat to discredit the tests themselves. However, it is to be expected that school people should at first make some mistakes in the use of relatively new instrumentalities of this sort and that they will increasingly use them more intelligently.

Need for more research. Although guidance service must make use of complete and accurate data concerning pupils, there appears to be no particular reason why guidance officers should themselves be expected to produce these data in the first instance. Presumably, the guidance worker is but one of many school officials who have various uses for the same types of data. Certainly officers charged with the general administration of the school need much the same sort of information if the school is to be administered efficiently.

Perhaps here again the field of guidance is under the necessity of furnishing a particular service chiefly because that service is not adequately provided otherwise. The National Survey indicates that, although some of the schools in the larger cities have special research bureaus which are expected to collect and collate facts with reference to the characteristics of pupils and their scholastic attainments, the amount of research actually done is discouragingly meager.²⁴ Furthermore, much of what is done in the name of research is not of respectable quality. All too frequently special research bureaus are not adequately staffed and their efforts are sketchy and piecemeal, with

²⁴ William H. Zeigle, Jr.: *Research in Secondary Schools*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 15 72 p.

little apparent relation to any stable or broadly conceived purpose. In some cases they are little more than propagandist agencies for dispensing information favorable to the school. However, these misdirections, futilities, and failures need not be interpreted to the disparagement of research. They serve rather to provide at least a temporary justification for the attempt on the part of guidance workers, as far as their many other tasks permit, to collect the information which must be used as a foundation for much of their work.

Occupational placement and supervision. During the decade following the World War, when secondary-school pupils readily obtained wage-earning occupations, vocational placement and follow-up services were advocated as important aspects of guidance service. It is to be noted that only in relatively few communities has placement service been of very substantial character.¹⁵ Relatively few secondary-school pupils are assisted by school placement agencies in finding jobs. They usually depend more upon personal friends or their own personal search for employment than upon placement agencies in schools.¹⁶ Since many pupils have had to take whatever kinds of employment were available, it might be expected that they would be not too well satisfied with their work after they get it. However, there is evidence to show that these young people in the majority of instances are satisfied with their positions.¹⁷ A person's satisfaction with his job does not fully warrant the presumption that he is in the most suitable position, but apparently those who have found jobs are fairly well pleased with the outcomes of the supposedly inadequate placement services which are available at present. Whether placement service should be further developed by schools is a debatable question. General economic conditions, particularly as they offer more or less opportunity for youthful workers and as they provide financial support for placement services, will partially determine the answer. It is possible also that even though publicly supported placement service is to be provided it should be undertaken by special agencies separate from the schools. After all, occupational placement is not particularly an educational

¹⁵ Notable examples of placement and follow-up work in city school systems and high schools are described by Reavis. (*Op. cit.*)

¹⁶ Grayson N. Kefauver and others: *The Horizontal Organization of Secondary Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 2, p. 215.

¹⁷ *Ibid.*

matter. It might be somewhat easier to arrive at some judgment concerning the matter if the schools had in the past given more attention to follow-up studies of their former pupils. Secondary schools are generally neglectful of the possibilities of keeping useful systematic records of their pupils while they are in school, but they are even more nonchalant in paying attention to them after they have left school. In a few instances some attempt is made to keep in touch with the pupil's occupational history during a short period after he leaves the school, but the typical secondary school makes no systematic attempt to know anything about its pupils after they have left its classroom. It is queer that an institution which makes very pretentious claims about its ability to "prepare pupils for living" does not take the trouble to find out at least whether its former pupils are living and what sort of lives they lead. If information of this kind were at hand it would be easier to know whether the present attempts at occupational placement are desirable and in what directions further developments should lead.

Problems in relation to guidance in general. Consideration of the various phases of guidance inevitably suggests certain problems which, although they probably cannot be settled at present, must be seriously studied in planning future changes. For instance, there are some persons who believe that guidance at present puts too much emphasis upon vocational life and vocational decisions. The individual pupil tends to think of his schooling in terms of what he can get from it to benefit himself, and he often thinks of such benefits rather narrowly in terms of earning or getting a living. These things have their place, but they should not be unduly emphasized at the expense of other values. Public secondary education is commonly justified — at least when its apologists are pleading for public support — for its contributions to the general welfare. Fortunately, contributions to the general welfare are not entirely incompatible with benefits to the individual. Presumably, the enlightenment which makes a better citizen will also help the pupil to become a better wage-earner, but to focus the youth's attention narrowly upon occupational life does not necessarily produce the good citizen. These things are so obviously true that workers in guidance commonly state their belief in them. But the content of occupations courses and counseling activities with reference to vocational choice give some warrant for the belief that

pupils are often encouraged to be interested in what they are too narrowly interested in already.

Whether or not these considerations are valid, there are other reasons for suspecting that emphasis upon vocational decision is, for many pupils at least, futile or undesirable at the secondary-school level. Many pupils need not and should not make any decisions about vocations while they are in the secondary school. They may very well be getting more information about occupational life than they get now, but they need not be encouraged to make choices. In many cases they should perhaps be influenced not to make them rather than encouraged to do so. This is particularly true of students whose ambitions and prospects make practically certain their completion of formal schooling in college or graduate school. If the school will take pains to identify these pupils with some certainty, it may suitably make no effort to help them to settle upon any definite occupational decision.

However, there are in every secondary school many pupils for whom the high school is the scholastic terminal, and who will leave school directly to try to find some sort of employment. Such pupils may not for some years finally determine what their vocational destiny is to be, but they are the pupils who most need whatever assistance the school can give them in making a reasonably satisfactory immediate vocational adjustment. They are in general the kinds of people who are least able to manage their own personal affairs competently. The school needs not merely to know what happens to such youngsters when they leave school. If it makes any pretense of providing vocational guidance, indeed if it has for them even the decently conscientious and friendly interest that any competent adult citizen should have in a youngster for whom he has any responsibility, the school should make very definite and practical effort to help them adjust themselves vocationally as they leave school and undertake to establish themselves in out-of-school life. Even if the school looks upon its function as purely educational, it will find ample justification for such effort, for it tends to conserve what the school has already accomplished in the case of the individual pupil. If a youngster who has left school finds himself without other moorings and drifts for some time, it is very likely that many of the interests which the school has sought to develop will be lost. The very fact that the school itself makes not even a gesture of further concern for him makes it easier

for him to suppose that his education is finished and that he must now look for other avenues of interest. The school which seeks to insure the conservation of its educational effort will find it profitable to assist those who leave it to make the best possible adjustment to out-of-school life.

Some popular misconceptions. After contemplating the claims and the practices of guidance workers one may faintly suspect that they are the innocent victims of a popular superstition which sometimes causes much anxiety among parents and their adolescent children. This is the belief that a young person seeking his "calling in life" is subject to the same sort of fates which used to keep romantic maidens in a state of anxious indecision about whether or not Prince Charming had at last actually arrived. The young person who assumes that somewhere, somehow he must find the one occupation in which he will be successful and happy may be excused on the assumption that he is ignorant, or stupid, or generally incompetent. Unhappily, there are many young people who have such notions. Guidance will serve such persons best by helping them to understand that most individuals who have the qualities needed for success in one occupation are similarly suited to many other occupations. They should not be encouraged to pursue further the will-o'-the-wisp desire to know prematurely about a distinctively superior vocation.

Even if emphasis on the selection of vocations is desirable, it is not entirely certain that we know enough to offer efficient guidance. It may be that long-range vocational guidance of secondary-school pupils in general is analogous to provision of steam yachts for all adolescents, something which might be very pleasant to possess, but somewhat beyond the competence and province of the secondary school to provide. Thorndike, after having made careful and thorough analysis of the vocational histories of former pupils in relation to the several types of data which were available concerning them while they were in school, says that "on the whole, the vocational histories of these boys and girls are not in accord with the opinions of those enthusiasts for vocational guidance who assume that an examination of a boy or girl of fourteen and a study of his school record will enable a counselor to estimate his fitness to succeed in this, that, and the other sort of work."¹⁸

¹⁸ Edward L. Thorndike and others: *Prediction of Vocational Success*. New York: The Commonwealth Fund, 1924, p. 52.

Even though the advocates of vocational guidance dislike to accept evidence contradicting their presumptions and aspirations, their own failure to produce comparably objective data concerning the possibilities and results of vocational guidance leaves them in a dubious and somewhat defenseless position. Although it seems highly desirable that there be carefully controlled experimentation intended primarily to explore and evaluate the possibilities of vocational guidance in secondary schools, it is scarcely justifiable at present to recommend that secondary schools generally should emphasize long-range prophecy of specific occupations for individual pupils.

Need of better distribution of guidance functions. Regardless of the theoretical possibilities of valid guidance, we should not ignore a very practical fact. Guidance specialists in secondary schools seem to undertake more than they can possibly do well. This is not necessarily their own fault. In order to gain recognition they have probably been forced to commit themselves to many responsibilities and, as has been said already, their labors have been increased by the not too satisfactory character of the typical educational program of the secondary school. But the fact remains that neither from the standpoint of preparation and personal competence nor with reference to his time can the guidance worker possibly be expected to do well all of the things which he undertakes to do. Although conditions vary tremendously in different school systems, the guidance counselor in a secondary school is ordinarily expected to serve several hundred pupils. In connection with his work he is supposed to obtain up-to-date information concerning the shifting conditions in the field of employment opportunities and the changing requirements and opportunities in many institutions of higher education. He is expected to know also about the home circumstances of pupils in the school. Furthermore, he is required to know rather intimately the peculiarities of individual instructors in the school and the character and purposes of the several phases of the curricular and extra-curricular program. He must be currently familiar with the scholastic records of pupils in the school. He must also be skilled in using various methods of obtaining information which is not ordinarily available in conventional scholastic records. He must plan and administer a formal course in occupations. He must conduct countless personal interviews with pupils. He must be competent in the diagnosis and remedial treatment of pupils who need

or are suspected of needing the services of a mental hygienist. His difficulties in doing these things are increased by the fact that he is working in a relatively new professional field in which materials and procedures have not yet become standardized and in which much improvisation is necessary.

These responsibilities are too many and too great. Unless there is definite effort to eliminate some of the less needed and possibly undesirable phases of this work, the entire business may be discredited by the inherent impossibility of doing it all well. It seems unlikely that special personnel sufficient to do all of these things will soon be provided. If guidance work is to make substantial contributions it must be somewhat more definitive and discriminating in its program. Although opinions about what functions should be diminished and what should be emphasized may differ, guidance workers may be reasonably certain of making valuable contributions if they will be more discriminating in giving to different groups of pupils the special services which these pupils need. Also, some of the responsibilities assumed by guidance specialists must be distributed among other members of the school staff.

EXTRA-CURRICULUM ACTIVITIES

The emphasis placed upon extra-curriculum activities and services is one of the most noteworthy characteristics of the contemporary American secondary school. It would be somewhat misleading to refer to these activities as making up an extra-curriculum program, for they generally lack the unity and definiteness of purpose, organization, and procedure which are implied by the term "program." In fact the so-called curriculum program, which may seem to be so decidedly lacking in these respects, is a model of purposeful unity and definiteness in comparison with the relatively chaotic and ephemeral miscellany of enterprises generally designated as extra-curriculum activities. Their unstable and amorphous qualities make extra-curriculum activities hard to classify and evaluate, but their mere scope and the energy devoted to their promotion are enough to demand that their intrinsic merits and their actual and potential contributions to the school's general educational purpose be thoughtfully scrutinized.

The character of the extra-curriculum. The National Survey shows that the number of extra-curriculum activities in a secondary school is likely to be determined somewhat by the size of its enrollment. Consider, for instance, the following statistics, which are based upon a study of conditions in 224 secondary schools:¹⁹

Enrollment Groups	Median Number of Activities
100 or fewer.	5 5
101 to 300	7.0
301 to 750	13 0
751 to 2,000	22 0
More than 2,000.	24 5

Although the survey report on these extra-curriculum activities presents much detailed information about geographic distribution, administrative techniques, and extent of pupil participation, it apparently did not occur to the investigators to find out what these extra-curriculum activities are. However, the report furnishes data with reference to the nature of extra-curriculum activities in four Middle-Western secondary schools.²⁰ The authors' tabulation of some of these data indicates rather clearly the major trends in these schools during recent years. It is worthy of note that the activities concerned with "civic, moral, and honorary" matters, avocational pursuits, and training supplementary to school subjects have increased markedly.

Potential scope of extra-curriculum programs. In contrast with the relatively modest offering of extra-curriculum activities in most secondary schools, and illustrating the almost unlimited potential scope of extra-curriculum activities if they are zealously and somewhat indiscriminately promoted, the National Survey shows what is being done in twenty-four schools which are presumed to be outstanding, in this respect at least.²¹ In the majority of cases the extra-curriculum activities in these schools are organized as clubs. In the twenty-four schools there are 606 clubs. Very few of these clubs are duplicated from school to school. The complete roster of activities carried on in these schools is too long for inclusion here, but it is a very interest-

¹⁹ From William C. Reavis and George E. Van Dyke: *Nonathletic Extracurriculum Activities*. U. S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 26, p. 19.

²⁰ William C. Reavis and George E. Van Dyke *Op. cit.*, chap. I.

²¹ *Ibid.*, chap. III.

TABLE 10. NUMBER OF NON-ATHLETIC EXTRA-CURRICULUM ACTIVITIES OF DIFFERENT TYPES PROVIDED IN FOUR SCHOOLS FOR THE PERIOD 1913-1930

Year	Civic, moral, and honorary	Publications	Avocational	Social	Subject, musical, literary, and teams	Total activities	Total different activities for period
1913.. . . .	5	9	3	5	31	54	
1914.	5	9	4	7	30	55	
1915.....	6	9	5	5	30	55	
1916.....	6	9	3	8	32	58	
1917... . .	9	9	4	6	37	65	
1918.... .	9	9	3	6	36	63	88
1919.... .	13	9	3	4	37	66	
1920. . . .	11	9	5	3	37	65	
1921. . . .	11	8	6	4	38	67	
1922.....	12	10	7	4	48	81	
1923	14	9	7	5	50	85	
1924.. . .	14	9	7	5	48	83	140
1925....	22	9	8	5	53	97	
1926.....	23	10	13	3	58	107	
1927....	25	10	10	4	63	112	
1928 . . .	28	11	15	3	65	122	
1929 . . .	33	12	16	3	69	133	
1930. . .	33	13	19	4	79	148	248

ing exhibit. For the purposes of the National Survey the activities have been classified thus:

- I. *Student government, school service, and honorary organizations.* Performing services "to the school as an entire unit and not to smaller groups of pupils."
- II. *Social, moral, leadership, and guidance clubs.* Clubs and activities organized and conducted primarily for the purpose of developing desirable characteristics of personality, social manners and usages, and leadership qualities in their members....
- III. *Departmental clubs.* Organizations whose primary purpose is that of supplementing or extending the work of specific courses in the regular curriculum....
- IV. *Publications and journalistic organizations....* organizations conducted for the purpose of publishing school papers, magazines, and annuals, as well as those the purpose of which is training in journalistic work.
- V. *Dramatic clubs, literary societies, and forensic activities....* organizations conducted primarily for the purpose of developing abilities and skills in ... drama, literary writing, and public speaking.

- VI. *Musical organizations*. . . instrumental and vocal organizations conducted for the purpose of training high-school pupils in musical skills and abilities.
- VII. *Special-interest clubs* . . . organized and conducted for the purpose of providing their members with desirable means of utilizing leisure time.

The following random selection of club names illustrates the great variety of these projects, and indicates as well the fact that more than half the total number are related to instruction in curricular subjects and to the development of specialized interests or abilities: Boys' Court, Sanitation Squad, Girl Reserves, Charm and Culture, Story Hour, Get-Rich-Quick (a guidance club), Chemistry, Newton Club (mathematics), Accountancy, Reporters' Club, Sheet Metal Club, Palette Club, Daily Papers, Thalís (dramatics), Choral Club, Model Airplane, Athena Debating Society, Drum Corps, Harmonica, Basketry, Outdoor, Boys' Camera, Cartoon, Fancy Sewing, Golf, Marionette, Quilting, and Terpsichorean.²² Potentially, if not in present actuality, provision of activities of this sort offers some very important educational advantages. Specifically, since the school is not ordinarily obligated to certify to the academic credit values of these activities, since it is not even obligated to maintain particular activities throughout a semester, the school is in a position to use the extra-curriculum as a sort of testing laboratory or proving ground in which promising innovations may be developed or evaluated with a view to their later adoption in curricular instruction.²³ Unfortunately this possibility is not often capitalized. The extra-curriculum is apparently assumed to be a kind of academic no man's land, a place where activity flourishes without any particular relation to the purposes or procedures of the curricular program. However, even if they have not been so intended by their promoters, many of the procedures used in conducting extra-curriculum activities might well be used to vitalize curricular instruction and many of the "subjects" offered as supplementary to the curriculum should be given definite curricular recognition.

²² This brief list is selected at random from the list presented by Reavis and Van Dyke, pp. 79-84. It represents about one tenth of the club activities offered in the twenty-four schools.

²³ This possibility is thoughtfully emphasized by Francis T. Spaulding in "What Extra-Curricular Activities Ought a Good School Not to Offer," *Educational Method*, 9:140-51 (December, 1929).

The process of absorption is already taking place. In many schools an activities period is an integral part of the daily schedule. In some schools pupils are required to participate in some sort of "extra-curriculum activity." In some cases points or credit are given for such participation. And in some cases, also, enterprises which at one time were extra-curricular have been accorded full academic status.

Another very considerable potential advantage is the opportunity which the extra-curriculum offers individual pupils to explore or persistently develop specialized interests or abilities without the hampering restrictions which are frequently characteristic of participation in the regular curriculum. It has already been pointed out in connection with vocational and exploratory courses²⁴ that the customary practice of pretending that a formal course is an indivisible and fixed unit, which must begin in September and finish in June and in which a pupil must conform to a fixed and limited pattern of activities, prevents many pupils from participating in such courses conveniently. Under these circumstances it is fortunate that the extra-curriculum is being used increasingly as a means of permitting individuals to get specialized training flexibly adaptable to their particular interests. Possibly the present trend of development foreshadows an educational program in which the basic curriculum will serve to provide for all pupils the fundamental insights which are essential for all and in which the extra-curriculum will have been definitely recognized as the means whereby individual pupils may conveniently obtain specialized training available in amounts suited to their particular needs and abilities.²⁵

A further advantage, which is available even if it is not utilized as fully as it might be, is the opportunity for giving concrete application to ideas which the pupil gets from curricular instruction. School instruction is frequently criticized because "it is not related to life," "it does not give the pupil sufficient opportunity for self-expression," or because it is so "abstract" or "uninteresting to pupils." These criticisms are valid, and curricular instruction, as such, could be improved in many respects. But it is possible that even superior instruction should be supplemented by extra-instructional activities somewhat similar to those which are offered at present. For example, the pupil

²⁴ See pp 323 ff.

²⁵ See Chapter XXI, wherein the implications of this trend are concretely described.

who studies in his civics class the underlying purposes and principles relating to popular election of government officials has within his own school extra-curricular opportunities for applying these ideas or perhaps checking them in the election of student officers. Some experienced school folk may be disturbed at this particular example, for it sometimes happens that pupils conducting their elections engage in practices which resemble those of "machine politicians" and "ward heelers" more than they exemplify the idealistic representations of the instruction in civics. Part of the disparity is due to the fictitious character of so-called civics instruction, but it is also due in part to the fact that extra-curricular practices in student government are commonly carried on as if there were no such thing as civics instruction in a secondary school. The educational possibilities of both formal instruction and extra-curriculum would be increased if they had at least a speaking acquaintance with each other. In similar fashion the extra-curriculum and the formal curriculum might well be more closely allied in many other relationships.

Another desirable characteristic of the extra-curriculum is the fact that it makes possible the easy disposal of activities which have been dead long enough to merit burial. After a subject has won a place in the formal curriculum it seems to have acquired a leasehold from which it can hardly be dislodged, but the elements of the extra-curriculum are characteristically subject to change. For example, Reavis and Van Dyke report that the median duration of some 391 extra-curriculum activities in four secondary schools within a period of thirty-one years was 4.4 years.²⁶ This figure may be somewhat misleading because of the large numbers of extra-curriculum activities which have been inaugurated recently and which will presumably persist for some time. It must be recognized also that, particularly in small schools offering few extra-curriculum activities, there is a tendency to perpetuate traditional activities. However, recent trends in larger and more progressive schools indicate that the extra-curriculum is comparatively free from the static qualities which afflict the regular curriculum.

Improvements needed in present programs. The extra-curriculum is nevertheless subject to considerable improvement. Although the varied character of the activities in different schools scarcely justifies

²⁶ *Op cit.*, p. 11.

any universally applicable indictments, there are several characteristic weaknesses. The extra-curriculum, like almost every other aspect of the secondary school's endeavors, lacks clearly conceived objectives. Although the more articulate proponents of extra-curriculum activities provide highly ambitious rationalizations of their presumed purposes, many of these objectives are stated in such all-inclusive terms as to be equally suitable, or unsuitable, as objectives of curricular instruction. To say, for instance, that extra-curriculum activities provide training for democracy or citizenship or better living or foster the personal development of the pupil, is not to indicate very clearly the distinctive objectives of this particular type of enterprise.

Furthermore, the relationship of the extra-curriculum to other aspects of the school program is by no means clear. Both in the conceptions which people have of them and in reference to the implicit character of the activities themselves, the extra-curriculum may be a means of escape from the supposed evils of the regular curriculum, or of strengthening its weaknesses, and in many cases there seems to be no relationship whatever. This fundamental defect will not easily be removed until the purposes of the secondary school are more clearly formulated. However, there are certain immediate possibilities which might be somewhat more clearly defined without waiting for the time when we may know more about what the secondary school as a whole should have as its educational objectives.

One possibility, which is effected to some extent at present, is the provision of specialized training needed by certain individuals. This function is by no means peculiar to the extra-curriculum at present. For example, in the regular curriculum a pupil is offered training in speaking French, in sewing, or in the writing of verse. All of these types of training are also offered as extra-curriculum enterprises in some schools. Both avenues have certain advantages. The training given in the regular curriculum is usually more carefully, responsibly, and thoroughly administered. The training offered in the extra-curriculum is ordinarily given only to those whose interests and felt needs for the training make them more promising candidates for successful attainment. Another advantage of the extra-curriculum is the flexibility with which amounts and rates of training may be adjusted to the needs, abilities, and ambitions of the individual. It should be recognized that certain subjects in the regular curriculum

and certain types of extra-curricular work now have a common purpose and that it would be desirable to effect a merger in which many types of training primarily devoted to the development of specialized proficiency are organized as one large division of the school's general program. There should be applied throughout this work the thoroughness, the systematic continuity of training, and the use of reasonably objective standards which are characteristic of the regular curriculum and to combine with it the selectivity and administrative flexibility which are now rather peculiar to the extra-curriculum.

A serious defect in many extra-curricular enterprises is the actual school practice of sacrificing educational potentialities in the effort to make "a good showing." For example, there are some schools in which a pupil who participates in a school band and who assumes that he is getting fundamental musical training is being exploited in the attempt to produce pseudo-musicians who can play three or four selections well enough to win in a contest. The same kind of prostitution of education tends generally to be present in all sorts of scholastic endeavor in which there is real or apparent necessity to exhibit concrete achievement for the edification of the populace. It is natural that this should be so, for education at its best is a process of slow growth, and its results are characteristically intangible. It is a gradual and long-term investment which cannot be expected to produce glamorous dividends immediately. The school, like other institutions supported by the public purse and subject to local control, is naturally tempted to try to produce tangible evidence of its achievements. This is undoubtedly the cause of many questionable extra-curricular enterprises. The defect is obvious, but practicable remedies are not always easy to put into effect. In any case, even though school people are not entirely to blame for the situation, there must be a vigilant watch that superficial and flashy trumpery does not supplant inconspicuous and substantial education and training.

The extra-curriculum suffers also from the fact that it is often looked upon as a somewhat superfluous business. The regular financial budget of the school is not usually planned to provide for its support, and sponsoring teachers frequently look upon the extra-curriculum as something which must be fostered out of the kindness of one's heart. The extra-curriculum is an attractive and winsome stepchild in a household which can never quite make ends meet.

In consequence it is likely to be somewhat shabbily treated except as it can produce a livelihood through its own talents. The lack of adequate financial support is in itself a handicap, and the necessity of making extra-curricular activities pay their own expenses plays into the hands of those who would emphasize entertainment at the expense of education. From these standpoints the tendency to abandon the distinction between the curriculum and the extra-curriculum, and to incorporate the two in an integral educational program seems to be desirable.

The extra-curriculum is also limited by the fact that, although it is presumed to offer opportunities for the development of specialized individual interests and abilities, most of its undertakings are administered as large-group enterprises. In a sense it duplicates to some extent the weaknesses of the conventional curriculum. Ordinarily the pupil who wishes to learn how to make photographs or to play the harmonica or to do wood-turning has opportunity to do so only if there are several others who wish to do the same thing at the same time. Admittedly, there are certain advantages in the inspiration and co-operation which come through group effort, but the group method of procedure makes the extra-curriculum somewhat restricted and inflexible. The group situation, moreover, is often somewhat abnormal in respect to the activities which it is presumed to promote. For example, such activities as sewing, cooking, photography, gardening, writing, microscopy, bird study, reading, and a host of others which are fostered through clubs are not so conducted in normal living. The boy or girl who becomes accustomed to a gregarious approach to activities which are most satisfactorily done individually and often in solitude is getting a very spurious and inappropriate introduction to them. Possibly the school has somewhat uncritically fallen into the fashion which our critics identify as an American peculiarity — we are said to be a nation of “joiners.” This is not the place to dwell at length upon this matter, even if it should prove to be the chief cause of the clubbiness of our extra-curriculum. The important fact in this connection is that the extra-curriculum might be improved considerably if there were more opportunity for individuals to cultivate special interests or abilities. If this is attempted the secondary school may conceivably make considerable use of materials and techniques for self-instruction. Possibly something can be learned here from the

fact that many persons make successful use of correspondence courses and printed manuals and handbooks in learning how to do certain things which they wish to do.

The extra-curriculum is not without its shortcomings, but it suggests many potentialities for the extension and enrichment of the entire educational program of the secondary school.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

Physical Training and Health Service

1. In one or more secondary schools in which you are interested:
 - a. What provision is made for the discovery and recording of pupils' physical defects or deficiencies in health?
 - b. What types of remedial treatment are regularly supplied to individuals who need it?
 - c. What specific activities or services should be added in order to make the school's health service reasonably complete?
2. Examine several recently published articles or books bearing on the problem of "socialized medicine," and consider their implications in relation to health services in schools.
3. Analyze and evaluate the content of several secondary-school courses in health and hygiene.
4. Obtain evidence of the extent to which participation in athletics results in physical benefit or injury to pupils.
5. Analyze recent pronouncements by recognized authorities in the field of public health in order to discover what problems or urgent needs they emphasize and what measures they advocate for meeting them. Consider the possible bearing of these statements upon the health program of a particular secondary school. Examine the school's program to find out to what extent it is or is not contributing effectively to the solution of the public health needs which you have identified. On the basis of your survey of these various facts, try to suggest feasible ways in which the school might more effectively help to meet such needs.
6. If the physical education program of a school is intended to minister directly to the improvement of the health of young people, it may be expected to prevent physical deficiencies in some pupils who are at present reasonably healthy and ameliorate them in others who are deficient in health. In order to evaluate the secondary school's attempts to provide health service from this standpoint, analyze the reports of careful investigations of the health deficiencies which are most frequently found in boys and girls of secondary-school age. Then find out what medical authorities or health specialists recommend as being the best methods of prevention and cure, respectively, of these health deficiencies. Finally,

examine in detail the physical education programs of the secondary schools to determine to what extent they are supplying appropriate services for the prevention and amelioration of health deficiencies in boys and girls.

7. Assume the desirability of health instruction which will provide for boys and girls reasonably comprehensive understanding not merely of physiology and personal hygiene, but also of a much broader range of facts of the sort to make young people discriminating "consumers" and supporters (or the opposite) of physicians, clinics, hospitals, purveyors of proprietary medicines, gymnasiums, diet faddists, athletic coaches, medical researchers, and the many other health agencies which are available. In the light of this assumption, try to plan at least tentatively the outlines of a course to supply the needed facts.
8. Recognizing the fact that a school which provides direct health service is operating as a public health agency, and that its services are necessarily partial, since at best they reach only individuals of school age, make a survey of the situation in a secondary school and its community to determine whether or not it would be feasible and desirable for the school to diminish considerably its own efforts to provide health service and to encourage the development of a special health service agency serving the whole community.

Guidance

1. Analyze in detail the means used in a particular school system for providing various types of guidance.
2. Evaluate the content of recently published textbooks for occupations courses in secondary schools.
3. Even if it is not now possible to predict the vocational success of particular *individuals*, would it be desirable to use vocational guidance to influence the general distribution of vocational ambitions in relation to changes in vocational opportunities?
4. Assuming the desirability of improved provisions for discovering and recording facts concerning the characteristics of individual pupils, list in detail the kinds of facts which should be discovered, and describe desirable methods of obtaining them.
5. Make a "job analysis" of the work of a special guidance officer in a large secondary school.
6. Make definite recommendations concerning the major responsibilities of a school guidance officer in helping pupils properly to plan their future scholastic careers.
7. A good many secondary schools have been led to inaugurate special programs of guidance, supposing that a guidance program is a good thing for

a school to have, but not being particularly aware of any specific needs to be met by the program. As a basis for indicating the purposes of a special program of guidance service in a six-year secondary school, indicate specifically what definite effects a guidance program should have upon the pupils.

- 8 It is apparent that guidance specialists in secondary schools ordinarily undertake at least nominal responsibility for more than they can possibly do well. It is also commonly observed that "home-room teachers" and other teachers do not seem very systematically to perform any special guidance functions. Assuming that certain important guidance functions may be carried on by teachers other than guidance specialists, analyze the various guidance services which a school should provide for its pupils in the attempt to select some which may well be the responsibilities of guidance specialists and others which should be the responsibilities of other members of the staff. Consider, in this connection, the possibility that certain guidance functions should be assigned by the school to pupils or parents.
9. Assuming that there are important differences in the kinds of guidance needed by (1) pupils who will almost certainly attend college, (2) pupils who will probably terminate their formal schooling upon graduation from the high school, and (3) pupils who will in all probability end their schooling without having been graduated from high school, determine as definitely as possible the kinds of guidance service most urgently needed for each of these three groups. Since the guidance service should apparently be differentiated to meet the individual needs of these different groups of pupils, there must be some good method of identifying early the pupils who will comprise each group. Work out the best possible plans for giving appropriate guidance to each group of pupils and for determining as soon as possible in which group a given individual belongs.

Extra-Curriculum

1. Write a descriptive and critical essay on the past and present development of the extra-curriculum activities in a secondary school.
2. Consider the respective merits of requiring, encouraging, or setting up restrictive limitations upon participation in extra-curriculum activities. Recommend definite policies governing school practice in these matters.
3. Examine and evaluate the extra-curriculum program in a secondary school, and suggest ways in which it may be improved.
4. List specifically extra-curriculum activities which may very appropriately be carried on by pupils individually. Make another list of activities which are best carried on by pupils working in groups. Describe as concretely as possible feasible administrative arrangements for these two types of activities.

5. The extra-curriculum is commonly handicapped by the necessity of being self-supporting financially. Consider this situation and recommend definite policies whereby it may be improved
6. Examine in detail the full scope of the activities and interests dealt with in the entire curricular and extra-curricular program of a secondary school in order to ascertain the nature and extent of duplication and overlapping. Having ascertained where duplication exists, show how it may be reduced so as to make more room for the development of other educational opportunities which are actual additions to the program.
7. Develop a method for determining in what ways and to what extent pupils who have previously been enrolled in extra-curriculum activities in a secondary school, subsequently continue to engage in the activities and interests which the extra-curricular program supposedly promotes. Try to obtain information of the sort which a secondary school can employ in seeking to improve its program of extra-curriculum activities so as to make them productive of permanent active interests in boys and girls.
8. There is much that goes on in the name of extra-curriculum activities which is there chiefly through the uncritical perpetuation of tradition. Moreover, some of the present activities for which there is some other justification are probably not so much needed as other activities which might be offered. Assuming or at least hoping that you can stimulate some desirable changes in the program of extra-curricular activities, work out a plan whereby a secondary school will conduct a thorough overhauling of its extra-curricular program, giving first place not to what has some justification, but seeking for the most part to offer only the activities which are most needed. In other words determine what the needs are, and then try to devise activities to meet them.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF PHYSICAL EDUCATION AND HEALTH SERVICE

General

The chapter by Perrin and the books by Turner, Williams, and Williams and Brownell are general treatments of the field as a whole. They represent the more or less staple viewpoints of leading sponsors of the work in the schools. Winslow's Regents' Inquiry report deals comprehensively with many aspects of health and physical education in schools. Its incisive criticisms and recommendations make it a very valuable source of information and ideas. The report by Brummel is a detailed factual study conducted as a part of the National Survey of Secondary Education. It contains many significant facts concerning conditions in the secondary schools, and will be very useful to the person who will devote considerable care and effort to reading it. The American Child Health Association's "Health Trends" is also a report of practices in a large number of schools. It is factual, objec-

tive, and well-planned, and is particularly valuable for the person who can spend but little time. The White House Conference report on *The School Health Program* is a readable presentation of the views which are pretty well agreed upon by recognized authorities in this field. Those who wish to make relatively exhaustive studies will find it profitable to consult the brief summaries of research and the bibliographies presented by Affleck and by Staley, as well as other bibliographies contained in many of the works listed here.

Affleck, G. B.: "Health and Physical Education," *Review of Educational Research*, 4:503-41 (December, 1934).

American Child Health Association: *Health Trends in Secondary Education: Fifty-three Schools Analyze Their Health Programs*. New York: American Child Health Association, 1927. 153 p.

Brammel, P. Roy. *Health Work and Physical Education*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 28

Perrin, Ethel: "The Supervision of a Health Program," chap. XIII of Willis L. Uhl and others *The Supervision of Secondary Subjects*. New York: D. Appleton and Co., 1929, pp. 562-606.

Staley, S. C.: "Physical Education," *Review of Educational Research*, 2:78, 79, 94 (February, 1932).

Turner, Claire Elsmere. *Principles of Health Education*. Boston: D. C. Heath and Co., 1932. 318 p.

White House Conference on Child Health and Protection: *The School Health Program*. New York: The Century Co., 1932. 400 p.

Williams, Jesse F.: *Principles of Physical Education*. Philadelphia: W. B. Saunders & Co., 1932. 468 p.

Williams, Jesse Feiring, and Brownell, Clifford L.: *Administration of Health and Physical Education*. Philadelphia: W. B. Saunders & Co., 1934. 598 p.

Winslow, C.-E. A.: *The School Health Program*. The Regents' Inquiry. New York: McGraw-Hill Book Co., 1938. 120 p.

General Administration and Organization

The books by Bache and Bennett enable one to get a fairly broad picture of school health work in a city and county, respectively, and the study by Jones deals with the general administration of health work in the school system of a large and populous state which is recognized as having a strongly centralized educational system. Both Bennett and Jones present their materials in a condensed and somewhat technical fashion, and their books will be useful chiefly to those who have some special interest in their subjects. The White House Conference report is a generalized, readable, and concise presentation of principles which are the agreed-upon fundamentals advocated by recognized authorities.

- Bache, Louise: *Health Education in an American City*. Garden City, New York: Doubleday, Doran & Co., 1934. 116 p.
- Bennett, Thomas Gordon: *A Health Program for the Children of a County*. (Contributions to Education, no. 584.) New York: Teachers College, Columbia University, 1933. 196 p.
- Jones, Hiram A.: *The Administration of Health and Physical Education in New York State*. (Contributions to Education, no. 622.) New York: Teachers College, Columbia University, 1934. 155 p.
- White House Conference on Child Health and Protection: *The Administration of the School Health Program*. New York: The Century Company, 1932. 42 p.

Special Phases

The titles of some of these books are self-explanatory but certain others deserve comment. The American Public Health Association's *What to Tell the Public About Health* is a series of readable and interesting articles on a wide range of health subjects. It is a very useful handbook for teachers or anybody. Those who are interested in sex education for the individual will find the book by Richmond very useful. Its social aspects are very sanely treated in the White House Conference report on *Social Hygiene in the Schools*. This report is a general and readable treatment of an important problem. The report by Savage and others presents scathing criticisms which made the devotees of school athletics very uncomfortable for a short time.

- American Public Health Association: *What to Tell the Public About Health*. Second Edition. New York: American Public Health Association, 1933. 271 p.
- Davis, Elwood Craig: *Methods and Techniques Used in Surveying Health and Physical Education in City Schools: An Analysis and Evaluation*. (Contributions to Education, no. 515.) New York: Teachers College, Columbia University, 1934. 162 p.
- Rice, Emmett A.: *A Brief History of Physical Education*. New York: A. S. Barnes & Co., 1929. 288 p.
- Richmond, Winifred: *Introduction to Sex Education*. New York: Farrar & Rinehart, Inc., 1934. 312 p.
- Rogers, Frederick R.: *Educational Objectives of Physical Activity*. New York: A. S. Barnes Co., 1931. 111 p.
- : *Test and Measurement Programs in the Redirection of Physical Education*. New York: Teachers College, Columbia University, 1927. 166 p.
- Savage, Howard J., and others: *American College Athletics*. . . . New York: The Carnegie Foundation for the Advancement of Teaching, 1929. 383 p.

- Strain, Mrs. Frances B.: *New Patterns in Sex Teaching*. New York: D. Appleton-Century Co., 1934. 242 p.
- White House Conference on Child Health and Protection: *Social Hygiene in the Schools*. New York: The Century Co., 1932. 60 p.
- Wood, Thomas D., and Rowell, Hugh G.: *Health Through Prevention and Control of Disease*. Yonkers: World Book Co., 1925. 125 p.
- : *Health Supervision and Medical Inspection of Schools*. Philadelphia: W. B. Saunders & Co., 1927. 637 p.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF GUIDANCE

General

Because of the fact that guidance is a relatively new scholastic enterprise and because most of the books dealing with it have been written by specialists, the inexperienced student is likely to find the terminology of these books a handicap and their style somewhat uninteresting. The book by Allen is comprehensive and definite. Its authority is supported by the fact that it is based very considerably upon the author's experience in developing a complete program of guidance in the schools of a large city. The book by Brewer is a readable exposition of the view that guidance is so all-inclusive as to cover almost everything that a school should do for boys and girls. The textbooks by Jones, Koos and Kefauver, and Proctor, are appropriately comprehensive and systematic. Koos and Kefauver present a large store of information and viewpoints, although their reports of other studies are in general presented somewhat uncritically. Their book is a convenient source of reference to other studies which the student of guidance may wish to examine for himself. The report by Reavis is factual and informative for the person who is already sufficiently interested to appreciate the significance of the facts presented. The book by Strang is interestingly written and provides both perspective and specific information. Readers without much previous background or experience will find it very helpful. Stuart and Morgan describe and interpret concisely the guidance agencies and activities in a school system which has long been recognized for its emphasis upon guidance.

- Allen, Richard D.: *Organization and Supervision of Guidance in Public Education*. New York: Inor Publishing Co., 1934. 420 p.
- Brewer, John M.: *Education as Guidance*. New York: The Macmillan Co., 1932. 668 p.
- Jones, Arthur J.: *Principles of Guidance*. New York: McGraw-Hill Book Co., 1930. 385 p.
- Koos, Leonard V., and Kefauver, Grayson N.: *Guidance in Secondary Schools*. New York: The Macmillan Co., 1932. 640 p.

- Proctor, William M. *Educational and Vocational Guidance: A Consideration of Guidance as It Relates to All the Essential Activities of Life*. Boston: Houghton Mifflin Co., 1925. 352 p.
- Reavis, William C.: *Programs of Guidance*. U S Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 14.
- Strang, Ruth M.: *The Role of the Teacher in Personnel Work*. New York: Teachers College, Columbia University, 1932. 332 p.
- Stuart, Milo H., and Morgan, DeWitt S. *Guidance at Work*. New York: McGraw-Hill Book Co., Inc., 1931. 104 p.

Educational Guidance and Adjustment of Pupils

A detailed, factual discussion of pupil accounting is presented by Heck. It is valuable chiefly for the person with special interest in its subject. The book by Reavis gives considerably more attention to the educational guidance of pupils in school. Symonds presents materials of considerable importance to specialists, but his work is likely to be difficult for the uninformed student.

- Heck, Arch O.: *Administration of Pupil Personnel*. Boston: Ginn & Co., 1929. 479 p.
- Reavis, William Claude: *Pupil Adjustment in Junior and Senior High Schools*. New York: D. C. Heath & Co., 1926. 348 p.
- Symonds, Percival M.: *Psychological Diagnosis in Social Adjustment*. New York: American Book Co., 1934. 362 p.

Vocational Guidance

The layman or the student with little previous knowledge will find the book by Earle brief, simply written, and interesting. The chapter from Douglass is also a very useful brief introduction to this general field, and the novice will find it simple and easy reading. The more comprehensive book by Myers is also introductory. Keller and Viteles present interesting descriptions of the progress of the vocational guidance movement. The study by Thorndike and his collaborators is a rigorously scientific criticism of several common assumptions of sponsors of vocational education. It is not easy reading, but it merits study. The White House Conference report is very informative, although it may be difficult for the person without some previous interest in the problems with which it deals. It contains very extensive bibliographies of important publications.

- Douglass, Aubrey A.: "Gainful Occupation: Guidance," chap. XII of *Modern Secondary Education*. Boston: Houghton Mifflin Co., 1938, pp. 483-529.

- Earle, Frank M.: *Psychology and the Choice of a Career*. London: Methuen Co., Ltd., 1933. 103 p.
- Keller, Franklin J., and Viteles, M. S.: *Vocational Guidance Throughout the World*. New York: W. W. Norton Co., 1937. 575 p.
- Myers, George E.: *The Problem of Vocational Guidance*. New York: The Macmillan Co., 1932. 640 p.
- Thorndike, Edward, and others: *Prediction of Vocational Success*. London: Oxford University Press, H. Milford, 1934. 284 p.
- White House Conference on Child Health and Protection: *Vocational Guidance*. New York: The Century Co., 1932. 396 p.

MATERIALS USEFUL FOR SUPPLEMENTARY STUDY OF EXTRA-CURRICULAR ACTIVITIES

General

Most of the books listed below have the appearance of systematically organized textbooks, but they present a very generous supply of concrete illustration and description of extra-curricular practice in schools. They contain relatively little thoughtful analysis of the appropriate functions of the extra-curricular program. Fretwell's book is somewhat exceptional in having a very definite underlying philosophy. It is easily readable, contains plenty of concrete materials, and will be useful even to the inexperienced and uninformed student. Both of McKown's books are almost completely innocent of theory and replete with concrete descriptions which will be particularly helpful to the person who wishes to conduct extra-curricular activities without taxing his own creative ingenuity. Terry's books are systematic and reasonably comprehensive treatments of their subjects. The first five chapters of his book on the supervision of extra-curricular activities contain valuable discussion of the general place of these activities and their possibilities in training for citizenship. Roberts and Draper present a staple textbook dealing comprehensively with various aspects of this field and emphasizing possible social values. The report by Reavis and Van Dyke is like most of the other parts of the National Survey in being factual in character and somewhat uninteresting in mode of presentation. It is, however, very informative, and is recommended to those who are willing to work for what they get. The yearbook of the National Society is now somewhat out-of-date, although extra-curricular practice is sufficiently traditional and unchanging to make the yearbook a fairly accurate source of information and ideas about various phases of extra-curricular activities.

- Fretwell, Elbert K.: *Extra-Curricular Activities in Secondary Schools*. Boston: Houghton Mifflin Co., 1931. 572 p.
- McKown, Harry C.: *Extra-Curricular Activities*. New York: The Macmillan Co., 1927. 617 p.

- McKown, Harry C.: *School Clubs: Their Organization, Administration, Supervision, and Activities* New York: The Macmillan Co., 1929. 516 p.
- National Society for the Study of Education: "Extra-Curricular Activities." *Twenty-Fifth Yearbook*, Part II. Bloomington, Ill.: Public School Publishing Co., 1926. 280 p.
- Reavis, William C., and Van Dyke, George E.: *Nonathletic Extracurriculum Activities*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 26.
- Roberts, A. C., and Draper, E. M.: *Extra-Class and Intramural Activities*. Boston: D. C. Heath & Co., 1928. 529 p.
- Terry, Paul W.: *Extra-Curricular Activities in the Junior High School*. Baltimore: Warwick & York, Inc., 1926. 122 p.
- : *Supervising Extra-Curricular Activities in the American Secondary School*. New York: McGraw-Hill Book Co., 1930. 417 p.

Special Studies

Specialists in extra-curricular activities have usually been interested in promoting them and not so much concerned to make them the objects of specialized research. The studies by Bellingrath and Jackson are at least illustrative of the possibilities of useful research in this field. Their appeal is necessarily somewhat limited. Persons who wish to devote considerable time to the study of extra-curricular activities will find the summaries and citations of Rugg and others very convenient.

- Bellingrath, George C.: *Qualities Associated with Leadership in the Extra-Curricular Activities of the High School*. (Contributions to Education, no. 399.) New York: Teachers College, Columbia University, 1930. 57 p.
- Jackson, Wayland: *Some Factors Influencing Participation in Voluntary School Group Activities*. (Contributions to Education, no. 419.) New York: Teachers College, Columbia University, 1930. 82 p.
- Rugg, Earle U., and others: *Summary of Investigations Relating to Extra-Curricular Activities*. (Colorado State Teachers' College Education Series, no. 9.) Greeley: Colorado State Teachers College, 1930. 304 p.

PROVISION FOR INDIVIDUAL DIFFERENCES

For many years educators in secondary schools have been troubled by problems related to the individual differences among pupils. Although much energy has been expended in the attempt to adapt the school to these differences, the seriousness of the problem has continued to increase, partly because of the increasing heterogeneity of secondary-school pupils, partly because of the increasing scope of the responsibilities undertaken by the school, and partly because some of the procedures intended to cope with the difficulty have been unsuccessful. Certain of these procedures which are in common use are not ordinarily designated as means of providing for individual differences, but their original intent or their continuing effects justify their consideration from this standpoint.

Selective enrollment of pupils. One of the simplest and most commonly used methods of providing for individual differences among pupils is selective enrollment of pupils. This may be accomplished either by setting up selective requirements for admission to the secondary school or by causing certain pupils to withdraw from the school while others continue their attendance. The first of these methods is used less and less as the years pass. In most school systems graduation from the elementary school entitles a pupil to enter the secondary school, and there is increasing tendency to admit to the secondary school pupils who have not satisfactorily completed the work of the elementary school if in the judgment of somebody or other it will be "more profitable for the pupil" to be advanced into the secondary school than to remain longer in the elementary school. Thus there are many boys and girls whose chief claim to the services of the secondary school is the fact that they have pretty well demonstrated their inability or their unwillingness to meet the requirements of the elementary school.

This may be an extravagant statement, for much depends upon

one's personal viewpoint. In all honesty it must be said that one of the important reasons which encourage some educators to pass on to the secondary school both the successes and the failures of the elementary school is the fact that pupils of advanced physiological development do become problems. The program of the elementary school is not well suited to their needs and they frequently interfere with the education of other pupils for whom the program is intended. Whether the tendency to eliminate all selective standards for admission to secondary school is a good thing or a bad thing, the fact remains that it is increasingly common. Thus one means by which the public secondary school has in the past made some provision for individual differences is now so changed as to increase the heterogeneity of its pupils and to aggravate the difficulty of dealing with them.

"Holding power" of the secondary school. The other phase of selectivity of enrollment has also been changing markedly, though perhaps not so much because of any definite intent on the part of the school authorities. It has long been customary for school people to talk about the holding power of the schools and to assume that the degree to which boys and girls continued in attendance was direct evidence of the school's holding power. It is increasingly apparent that the school's holding power is to a large extent merely the obverse of the holding power of economic and industrial institutions. During recent years particularly, secondary-school attendance has reflected the fortunes and misfortunes of the world of economics, with the result that pupil heterogeneity has been further increased.

Should selective enrollment be restored? Undoubtedly, these trends have had much influence in emphasizing the need for more adequate provision for individual differences. Before turning aside from these matters to consider other phases of the problem and other methods of dealing with it, it is wise to consider whether the secondary school might not at least partially solve its problem by attempting to restore a policy of selective enrollment. Such a policy is anathema to many school people, who have worked for years to "bridge the gap" between the elementary school and the secondary school and to keep pupils in school as long as possible. Others believe that educators are merely indulging in academic discussions when they talk of attempting to control the extent to which pupils stay in secondary schools, when conditions beyond the control of educators exert such powerful in-

fluences upon school enrollments. However, we need not overlook the fact that educators lobbying through their state associations have done effective work in stimulating legislatures to pass compulsory school attendance laws. If they have influence enough to get everybody into a secondary school, it is possible that they could if they wished get a few pupils out of it.

Only an exceedingly optimistic person could assume that all the pupils now in secondary schools are making socially profitable use of their time and the school's resources. In fact it is possible that many pupils now in secondary schools are actually being injured in the process. Of course, this is not necessarily an indictment which applies peculiarly to schools. The same thing might be said of homes, and churches, and hospitals. It is to be expected that no vital human institution will entirely avoid some waste and some injury to those whom it is intended to benefit. However, what we may well be concerned with is the fact that the secondary school may have something to gain from at least recognizing the probable desirability of excluding some pupils from further attendance and from formulating definite policies and discriminatory criteria to be used in doing it wisely and justly. It is interesting to reflect upon the fact that, although schools give some attention to admission requirements and although they have very highly systematized and intricate procedures for deciding whether pupils are to be passed or failed in particular subjects and for determining whether or not a pupil has met requirements for graduation, very little attention has been paid to the requirements which a pupil must meet to merit dismissal from school.

As a matter of fact secondary schools seldom take definite steps to eliminate pupils from school because of failure to become educated. If the pupil is intelligent enough to see that nothing valuable is being accomplished in his behalf, he is permitted under certain circumstances to withdraw on his own initiative, but the school does not ordinarily make the first move in this direction. The school ordinarily takes the initiative in eliminating a pupil only when he has been discourteous or has otherwise failed to conform to certain moral conventions. Custom makes this practice appear to be reasonable, but it is not reasonable. Consider, for example, what would happen if a hospital were to begin to discharge its patients in terms of their politeness. Hospitals ordinarily discharge their patients for either of two very

good reasons; they discharge them when they are restored to health, or when it becomes apparent that further hospital service is unlikely to effect a cure. Physical health is admittedly more concrete than education. When the patient dies the hospital is at once aware of the fact. The school, on the other hand, does not always find it easy to determine whether a pupil has become educationally inert. Nevertheless, this difficulty probably does not wholly justify the *laissez faire* policy which secondary schools ordinarily follow with respect to these matters.

On the other hand, it is well to consider in this connection the possibility that, even if the school were to adopt a policy of solving the problem of providing for individual differences chiefly by excluding all pupils whose needs are not suited by the existing school program, the results would be unsatisfactory. If it were not for the urgent pressures and problems arising from the influx of new pupils, the schools might very complacently sink so deep into the ruts of their antique traditions that they would be utterly useless except as archaeological exhibits. There are those who insist that the school should not attempt to exclude even its most obviously failing students because in doing so it relieves itself of the responsibility of making any improvement. Perhaps so; but this is to place a very low estimate upon the vision and intelligence of secondary-school administrators and teachers.

In any case, the particular policy which the secondary school should follow in providing for individual differences through selective enrollment will properly be determined partially by the extent to which it is able to make needed adjustments in the character of its educational program. Presumably, there will always be some necessity for selective enrollment, even though the program becomes very much better than anything which can be predicted now. Certainly the present program is in many ways ill adapted to the pupils who are expected to benefit from it. In view of the laggard character of curriculum reform it seems likely that many thousands of secondary-school pupils will have completed their schooling before the program becomes even reasonably adequate. For the present at least it might be very profitable to give more attention to the possible benefits of using educational criteria in the enforcement of selective enrollment in secondary schools.

Use of certain courses as "dumping grounds" for inferior pupils. Closely related to the method of elimination as a means of providing for individual differences is the practice of using certain subjects as "dumping grounds" for pupils for whom more respectable types of education are apparently futile. This method, which is now rightfully coming to be discredited and discarded, has one advantage. It does make easier the task of teaching academic subjects to exceptionally capable and scholastically ambitious pupils. As long as the pupil who fails to make satisfactory progress in the study of English literature, history, or algebra can be quickly shunted into a shop of some sort his departure permits the maintenance of a somewhat higher standard of work than can be maintained with his participation.

Although this advantage for the more capable pupils who have been retained is considerable, it is probably outweighed by the disadvantages to the pupil who has been excommunicated. Specifically, the effect of putting a pupil into a vocational training course is to prevent him from coming into any illuminating contact with matters which are presumably of fundamental concern to all persons. It has already been emphasized that technical training in relation to a particular occupational task is by no means the equivalent of education which develops understanding and appreciation of a broad range of facts. Of course, if we consider this question in terms of the curricula now available to pupils, it may be that the pupil who is damned to the outer darkness of technical training would not have been much more enlightened if he had been exposed to the edifying influences of instruction in Latin or French, algebra, ancient history, and literary classics. That is, perhaps there is some excuse for assigning the relatively unsuccessful pupil to training courses if it is obvious that the alternative academic courses are equally unsuitable.

Another disadvantage for the relatively inferior pupil is the fact that his supposedly educational program thus requires of him more changing about from course to course, more difficult adaptations than are required of the successful academic pupil. The academic pupil follows a course in which there is little enough continuity and sequence, but to assume that the inferior pupil, because he is inferior, will be able to make more adjustments than the superior pupil must make is to provide for individual differences by penalizing them.

Even if it were desirable to provide for differences in scholastic

ability by transferring into vocational or practical arts courses all pupils whose attainments elsewhere are unsatisfactory, there is no general field of the curriculum which has any monopoly of bright pupils or dull ones.¹

Implications of certain contemporary practices. The practice of attempting to solve the problem of individual differences in ability by shifting unwanted academic pupils into other curricula is but one aspect of the larger policy of using differentiated curricula as a means of providing for individual differences. Although educators seem generally to be unaware of the fact, or at least unconcerned about it, it is apparent that the policy of permitting pupils to take any one of several different subjects has implications which most educators would probably not wish to accept. One of these implications is the assumption of transfer of training almost without limit. The assumption that a pupil may become an educated person just as well by studying one subject as by studying any of several others implies that transfer of training results. This is true only if there is some definite objective common to all. However, the alternative implication is that there is no objective common to all pupils, and that the school is intended to serve merely as a miscellaneous service bureau which will provide as inclusively as possible what each pupil wants or needs personally. Presumably the assumption of unlimited transfer of training is invalid. If the principle of indiscriminate election of courses from a miscellaneous offering of subjects is valid, the integrating function of the secondary school becomes an empty shibboleth.

DIFFERENTIATION IN BASIC COURSES

Trend toward "homogeneous grouping." Fortunately, the policy of attempting to provide adequately for individual differences through the offering of a wide variety of subjects is beginning to be recognized as unwise both from the standpoint of practicality and with respect to educational values. Even though pupils are distributed among a great variety of subjects, it is inevitable that there will still be considerable heterogeneity of abilities in classes in the several subjects, and small subject enrollments hinder any sort of homogeneous classification of pupils within subject groupings. Furthermore, there is

¹ See Chapter III

increasing tendency to assume that it is desirable from an educational standpoint to present to all pupils certain basic subjects in which are to be found insights essential for all persons, irrespective of their scholastic aptitudes or their personal interests or lack of interest. For example, the term "core curriculum" becomes increasingly common in educational discussions. Although it is generally recognized that the secondary school may well provide as fully as it can for differentiated training in a variety of subjects to fit the peculiar needs of individual pupils, it is also becoming apparent that such specialized training is no substitute for common instruction in those fields of knowledge which concern all men, but rather a desirable supplement to it. In consequence, the secondary school is confronted more urgently than ever before with the problem of providing for individual differences among pupils who are instructed in the same basic subjects.

The importance of the coincidence of the trend toward increasing heterogeneity of secondary-school pupils and the trend toward increasing homogeneity of the basic curriculum which is offered to them can scarcely be overestimated. People who have wondered for years about what happens when an irresistible force meets an immovable object may well be advised to get ringside seats for the struggle that is inevitable when the curriculum and the secondary-school pupil actually attempt to meet one another. In fact the fireworks have already started, as we shall see presently.

Various methods of providing for individual differences. There are certain preliminaries which may be observed briefly. Thus far we have considered only those provisions for individual differences which involve selective distribution of pupils. Specifically, some attempt has been made, although not so much recently, to solve the problem by distributing some pupils outside the school entirely. Subsequently, it has been more popular to see what could be done by scattering the pupils about into various compartments of the entire curriculum. Nothing has been said about considerable efforts which have already been made to provide for individual differences among pupils even though they all are enrolled in one common curriculum.

Failure for the "slow" pupil. Generally the attempt to provide for individual differences among pupils enrolled in a common curriculum involves some method of adjusting the amount of time devoted to it, so that the superior pupil traverses rapidly the same subject matter

over which the inferior pupil plods slowly. One of the simplest means of giving effect to this policy is the practice of causing inferior pupils to "fail" in their courses, so that they must repeat them once or twice, or possibly several more times, before they are given academic credit for them. Obviously this method causes the inferior pupil to devote plenty of time to the subject which he undertakes, but it tends to be destructive of morale. It ordinarily produces discouraging inhibitions which prevent the pupil from undertaking his work with much gusto. After he has finally been lucky enough to receive a passing mark for his course, he is likely to look back upon it as something which he hopes never again to encounter. These attitudes are scarcely satisfactory as educational outcomes. It is therefore not surprising that educators generally have begun to distrust the system which inevitably produces such attitudes in large numbers of pupils.

Acceleration for the "bright" pupil. Another relatively simple method of differentiating the amount of time devoted to a common curriculum is the practice of permitting superior pupils to skip grades and thus to reach the end of their work sooner than typical pupils are normally expected to do it. The actual number of pupils thus accelerated has never been large, even in school systems where acceleration is definitely encouraged. There has been frequent objection to the practice because the academically superior pupil is advanced into grade levels where most pupils are more mature socially and physically. Even though the accelerated pupil seems ordinarily to keep up with pupils who have not skipped grades, he is likely to miss entirely certain very desirable elements of insight and training which are presented in the courses he skips. Furthermore, teachers have usually been loath to permit many pupils to advance through school by a hop, skip, and jump process. Although many relatively inferior pupils have been forced through failure to take courses repeatedly, very few superior pupils have been accelerated.

Both the method of failure and repetition of courses and the method of skipping have one weakness in common. They compel the pupil to miss certain parts of the curriculum which are presumed to be important elements in the education of youth. In the case of the skipping method this difficulty is not so serious as in the method of failure and repetition, for the relatively bright pupil gets at least a sketchy survey of the entire course, and he is sufficiently talented to

fill in some of the gaps for himself. The method of failure and repetition, on the other hand, prevents the inferior pupil from coming into educative contact with those subjects which are normally offered in the later stages of the curriculum sequence. For example, the boy who spends two or three years repeating a course in ancient history may thus increase somewhat his understanding of ancient history, but he is using time which would normally be devoted to other historical or social studies. Since the method of failure and repetition is more commonly used than the method of skipping the inevitable result is to give to the inferior pupil a rather thorough drubbing in certain partial elements of the curriculum and to compel him to neglect entirely other subjects which are presumably important for him.

Increased emphasis on homogeneous classification of pupils. With experience of the limitations of these procedures as a background the secondary school has attempted to develop other devices which would permit both the superior pupil and the inferior pupil to receive instruction suited to their distinctive differences in talent or ambition. Furthermore, it has been assumed that at least in its broad outlines the basic curriculum for the dull pupil should cover approximately the same realms of fact as are presented in somewhat greater fullness of depth and detail to the superior pupil. Apparently there is little ground for objection to either of these principles. On the contrary, they appear to be thoroughly defensible, but, as has already been intimated, the attempt to give practical effect to these principles has produced wrath and disillusionment in some quarters.

Consideration of the means used may serve to disclose why some disillusionment was to be expected and to suggest possibilities for avoiding it in the future. Particularly in relatively large secondary schools, where there is considerable effort to make concrete and definite provision for individual differences in pupils, some type of grouping of pupils into relatively homogeneous class sections is the most notable type of provision.² Most commonly an attempt is made to classify pupils in terms of their abilities, particularly in terms of their relative intelligence, as indicated by group intelligence tests or by teachers'

² Roy O. Billett: *Provisions for Individual Differences, Marking and Promotion*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 13 472 p. This monograph is a pre-eminent source of factual information both about the general status of provisions for individual differences in American secondary schools and about the details of provisions made in particularly noteworthy schools.

ratings of intelligence. In some instances pupils are grouped according to their past educational achievement as reflected in their marks, or in terms of their supposed "industry, application, and effort."³ The National Survey does not furnish direct evidence concerning the degree to which homogeneous grouping has resulted in educational benefits to pupils, although a majority of the large schools, particularly those of 1000 or more pupils, report that they have used homogeneous grouping "with unusual success."⁴ Although the trend toward homogeneous grouping is increasing, and although the partial evidence now available is more favorable than unfavorable, there are difficulties and problems which provide ground for dispute or adverse criticism of homogeneous grouping.

Objections to homogeneous grouping. Some objectors claim that homogeneous grouping is "undemocratic."⁵ Specifically, there is objection to the fact that homogeneous grouping inevitably emphasizes assumed differences in the personal abilities of pupils, and that, if grouping is effective, it tends to increase those differences to the extent that pupils and everyone else will be aware of the superiority of some persons in contrast with the mediocrity or inferiority of others. Precisely so! That, presumably, is just what homogeneous grouping is intended to make possible. This objection is not so much an objection to homogeneous grouping, as such, as it is the assertion of a basic conception of education in relation to a particular interpretation of democracy. It represents the acceptance of what might be called a popular interpretation of democracy. This conception, which is not the only commonly accepted interpretation of democracy, is in rather literal agreement with the words of the Declaration of Independence. It assumes that all persons are equal or that, if they are not — and they obviously are not — they ought to be. Accordingly, the secondary school should do nothing to foster the development of any differences among men, or at least, if persons somewhat unavoidably do become different, the secondary school should not do anything

³ Billett *Op. cit.*, chap IV, "Bases of Grouping," pp. 95-126.

⁴ *Ibid.*, p. 46

⁵ See, for example, Alice V. Kelher *A Critical Study of Homogeneous Grouping*. Teachers College Contributions to Education, no. 452. New York: Teachers College, Columbia University, 1931. 165 p. This study is useful not merely as a very effective presentation of many indictments of homogeneous grouping, but also for the introductory survey of various modes of provision for individual differences.

to make them aware of the superiority of one person over another. Were it not for the fact that considerable numbers of apparently intelligent people accept these notions as valid, it would be a waste of time to pay attention to them.

In somewhat the same vein objectors to homogeneous grouping oppose its implication of fundamental disrespect for personality. The argument seems to be that some pupils are likely to have their feelings hurt when they discover that they are presumed to be less able than others. This is undoubtedly true. With reference to the actual practices of many schools and teachers there is some reason for the objection. However, it is not necessarily valid in its entirety. It is unfortunately true that many teachers have the belief that pupils of relatively little scholastic aptitude are "hopeless." They frequently have no hesitation in making clear to their pupils that there is something very much the matter with them and that any teacher who has to teach them is the unhappy victim of a cruel fate.

These facts are not ordinarily embodied in the statistical reports of secondary-school practice, and they are certainly not characteristic of all teachers of relatively inferior pupils, but they must, in all honesty, be admitted by anyone who observes the attitudes and instructional practices of large numbers of secondary-school teachers. There may be some extenuation for such attitudes in the fact that the traditions of the secondary school are not in harmony with the potentialities or lack of potentialities of many pupils. Furthermore, many teachers honestly believe, probably with some reason, that their own efficiency as teachers may be judged in terms of the extent to which their pupils, irrespective of their meager talents, measure up to the academic performance of competent pupils.

Although these attitudes are not without excuse, they are certainly unreasonable. The school has no business to accept as pupils those whom it will repeatedly insult because they do not happen to possess high intelligence. And something is very decidedly at odds when a school which assumes responsibility for preparing young people for citizenship throws up its hands in despair over the impossibility of doing anything helpful for thousands of young persons who will soon undertake the responsibilities of citizenship.

Popular misconceptions concerning mental ability. Objection to emphasis upon distinctive classification of pupils and to the unfortu-

nate attitudes of many teachers probably grows from prejudice which is still too common in contemporary life. A relatively low "I.Q." is usually regarded as a symptom of moral taint. Possibly because of ignorance concerning the relation of biological inheritance and other possible causal factors to mental superiority or inferiority, many persons believe that there is something disgraceful in not being intelligent. Similarly many backwoods communities have looked on brawn as evidence of moral worth. Those who could whip their fellows in physical combat, or perhaps merely claim the ability to do so, were morally superior to persons who were not physically robust. Although this silly notion, which encouraged some stupid behemoths to make intolerable nuisances of themselves, has not entirely disappeared, it has largely given way to a more sensible and wholesome view of the matter. It is now realized that healthy physique is to a considerable degree the result of forces beyond one's personal control, so that it is not much to brag about. At the same time it is so valuable that it should be cultivated and preserved as fully as possible.

We need similar attitudes with reference to mental ability. We must not belittle the importance of intelligence and the necessity of fostering in all pupils, both the bright and the dull, the disposition and the habit of using it to the fullest possible degree. Presumably we need not only to learn to make the best possible use of the talents which we happen to have individually, but also to esteem and to make profitable use of the contributions of others who are more talented than we are. Any other course is wasteful and silly, and in the long run probably tragic.

Undesirability of ignoring differences in mental ability. Hence, it appears desirable that the school should take pains to provide opportunities whereby individuals of differing levels of talent may severally be expected to develop as fully as possible the amounts of talent they have. The school must also call attention to the nature and significance of these differences to the end that men may live together with understanding and mutual respect and consideration. This may sound somewhat fanciful and idyllic, and there are some educators who insist that it is better to keep stupid people in ignorance of the fact that they are stupid and to avoid letting the bright person discover that he is bright. It is somewhat surprising that schools have been rather successful in doing this, at least while young people are in school.

But, fortunately, life has a way of exposing these disguises and levying harsh tolls upon those who have been fooled by them. If anything deserves to be called fanciful and unreal it is the presumption that it is both undemocratic and disrespectful of personality to attempt to hide the fact that some persons are much more talented than others, to oppose or neglect the effort to provide discriminatingly for every person opportunities which are reasonably appropriate to his level of personal talent, and deny the desirability of making all persons understand as fully as possible the character and significance of their own abilities and the abilities of others.

Homogeneous grouping affords some teachers an opportunity to persist in ascribing moral depravity and educational worthlessness to pupils whose scholastic talents are relatively inferior. Nevertheless the solution of the problem is not to attack homogeneous grouping, but to improve the attitudes of the teachers. If homogeneous grouping increases the likelihood that the poor attitudes of teachers will more readily affect pupils adversely, it is possible that homogeneous grouping may also increase the probability that a good teacher may more readily affect pupils favorably.

Need of harmony in types of approach to various subjects of instruction. Although homogeneous grouping of pupils has not yet reached the point at which it is feasible to assess its results with much definiteness, it is evident that its full potentialities will not have been determined until it has been accompanied by certain other changes which might well be made in the school's educational program. Indeed, if homogeneous grouping were now to be evaluated in terms of present practices, it might be discredited not so much for its intrinsic deficiencies as for the absence of other needed developments.

One change which might facilitate considerably the ease with which homogeneous grouping may be administered is the attempt to produce more harmony and consistency in the types of approach used in the several subjects in which there is to be homogeneous grouping. The several academic subjects offered to large numbers of pupils differ markedly in the types of abilities which they require of pupils. Success in the study of English implies not only the ability to read well but also a writing ability superior to that required in any other subject field. The pupil who studies mathematics does very little reading, and what little he does is very different from that done in the study

of English or the social studies. He does little writing, in the ordinary sense. But he spends much time in repetitive computations which few teachers would recognize as having anything whatever to do with their subjects. In the study of a modern language the arts and skills involved are again very different from those employed elsewhere. If the pupil studies biology, he may be required to draw many pictures, something which is not considered necessary in most other subjects. Some of these peculiarities are much more important than others, and the list is by no means complete. Even among those subjects in which the presentation of facts and the development of insights is a primary objective, the pupil's work represents such great variety of traditional learning exercises as to make it inevitable that he should find some subjects much easier than others. In the subjects in which technical training is the predominant function the disparities are greater.

Consequently, the task of classifying pupils so that they are reasonably homogeneous is tremendously increased. In fact, authorities frequently recommend that pupils be grouped by subjects, since there is little probability that a pupil who does well in one subject will do approximately as well in another. However, it is not practicable to group pupils by subjects, particularly in small schools. Even though it were unquestionably necessary to group pupils homogeneously it would be impossible to go very far with such grouping in any but the largest schools, unless the employment of more consistent approaches to the study of different subjects were to reduce somewhat the disparities in the performance of individuals studying these subjects. There is considerable possibility that this would be true. Of course, homogeneous grouping is not in itself the Procrustean standard to which all subjects of instruction must be made to conform. The learning activities involved in the study of all these subjects might well be more similar than they are at present. For example, it is usually possible to find out at least something about any subject simply by reading about it. If a pupil is able to study one subject by reading about it, he should be able also to find out about other subjects in the same manner. Or, if a pupil's aptitude or lack of aptitude is such that he learns about a subject by listening to his teacher describe it, there is every reason to believe that he can also learn about other subjects in the same way. And, if motion pictures

are necessary to develop his insights with reference to biology or American history, these visual media will presumably be effective in producing understanding of other subjects. The general employment of similar instructional methods and media in all basic subjects for the development of understanding might be expected to reduce considerably disparities in the interests and attainments of individual pupils in different "content subjects."

Need of revising courses of instruction to suit the bright and the dull. However, conventional peculiarities of instructional procedure and the resulting contrasts among different subjects are perhaps less important than the fact that there has been comparatively little progress in the attempt to adapt instructional procedures to the present characteristics of pupils and to their future needs. Having classified and grouped pupils homogeneously we very commonly use substantially the same courses of study and the same instructional procedures for the bright and the dull, as if somehow we expect the mere fact of selective grouping to serve as a panacea to absolve us from responsibility for doing anything further. To be sure some attempt is made to develop "new" courses of study for "dull groups," but they are very much like the courses offered to the usual type of mixed class.

Furthermore, instructional methods and materials are differentiated very little in comparison with the differentiations which might well be made. School folk are traditionally disposed to assume that education comes about through such activities as the reading of books, verbal memorization, oral catechizing, exercises in writing, frequent imposition of examinations, and systematic assignment of marks and credits. In short, conventional educational procedure in schools is typical of the disciplines which help people to become scholars. Unquestionably some pupils should be directed toward scholarly competence, particularly those who have marked scholastic aptitude. But it is fantastic and preposterous to assume that prospective laymen who will subsequently occupy various levels of leadership and followership in the manifold callings of contemporary civilization should generally become scholars. Nevertheless, proponents of this narrow scholasticism may argue that, although scholarship for all persons is not an appropriate objective, the activities of the scholar are the best means of informing the prospective citizen who needs greatly to be well informed, the best medium for the development of

the interests and appreciations which should be developed in the lay citizen. With particular reference to certain types of pupils this notion undoubtedly has some validity, but to assume that it is appropriate to all sorts of pupils is somewhat unreasonable. Educators must be afflicted with acute myopia if they cannot see that many of the agencies which find it necessary to inform men, to change and develop their ideas and their ideals, and indeed to change the course of human action, make very effective use of a variety of procedures and materials which the schools commonly neglect or actively mistrust.

The movie as an educational medium. Consider, for example, the movies. Educators themselves are sometimes alarmed because the movies are so effective in putting into the minds and hearts of young people ideas and ideals which are somewhat questionable. The makers of the movies are handicapped by the fact that they must simultaneously appeal to persons of all ages, various levels of intelligence, different interests, and the like. Yet the person attending the movies is assigned no books to study, he is not made to answer any questions, he is not expected "to explain in his own words" the matters which he has observed, he is not expected to take examinations of any sort. School teachers, many of whom are devoted adherents of the motion picture theater, would be outraged if the movies submitted them to the verbalistic, catechetical, pseudo-scholarly ceremonials which they are accustomed to impose upon their pupils. Yet, without apparently even intending to do so and without making things particularly uncomfortable for their patrons, the movies are very effective in putting their patrons into the possession of many potent ideas and interests.⁶

Reluctance to make instruction easy for the pupil. Although some school teachers would be glad to use motion pictures for instructional

⁶ Herbert Blumer and P. M. Hanser: *Movies, Delinquency, and Crime*. New York The Macmillan Co., 1933. 233 p.

W. W. Charters. *Motion Pictures and Youth: A Summary* Combined with Perry W. Holaday. *Getting Ideas from the Movies*. New York. The Macmillan Co, 1933 66 p and 102 p

Wendell S. Dysinger and Christian A. Ruckmick *The Emotional Responses of Children to the Motion Picture Situation* Combined with Charles C Peters: *Motion Pictures and Standards of Morality*. New York The Macmillan Co, 1933. 122 p. and 286 p.

Henry James Forman. *Our Movie-Made Children* New York The Macmillan Co., 1933. 288 p.

Ruth C. Peterson and L. S. Thurstone: *Motion Pictures and the Social Attitudes of Children*. New York: The Macmillan Co, 1933 73 p.

Frank K. Shuttleworth and Mark A. May *The Social Conduct and Attitudes of Movie Fans* New York: The Macmillan Co, 1933 142 p.

purposes, and a few teachers do use films, they have several reasons for not giving up their somewhat vain attempts to train pupils as if they were all going to be scholars. For instance, some would probably object to anything which would make things too easy for the pupil. Many school folk have been blessed with the notion that education must be hard work, and teachers undoubtedly deserve credit for the persistence and ingenuity which they have shown in developing different sorts of grinding drudgery to make their pupils uncomfortable.

Teachers who have swung to the opposite extreme of assuming that the major criterion of effective education is the pupil's pleasure in it, frequently make use of traditional work-forms sufficiently emasculated to be not too unpleasant. Closely allied with this assumption is the notion that the pupil should not get anything without earning it. This view undoubtedly has considerable validity if education is believed solely to be a way of conferring special privileges upon individuals. Although a good education almost inevitably does this very thing, there are some who believe that the existence of publicly supported secondary schools for all youth is based squarely upon the belief that, irrespective of its benefits to individual pupils, education is profitable as far as it produces in young people insights and appreciations which will at least make it safe to accept them as responsible and intelligent citizens. For example, we wish to have young persons understand the nature and importance of infectious diseases, not because they have earned the right to know about them, not because it is pleasant to have this knowledge, but because the safety and well-being of everyone is jeopardized through ignorance of such matters.

Our respected social philosophers and statesmen have not been indulging in mere glib and idle chatter when they have insisted that an enlightened citizenry is essential to the stability and safety of a democratic civilization. Any educator who conceives the function of a public secondary school merely as an indiscriminate service-station where individuals get what they want if they pay for it or if their credit is good, is not far removed from being a public enemy. Any pupil who is denied the possession of essential insights and attitudes on the pretext that he is unable or unwilling to submit to the narrowly academic and pseudo-scholarly ceremonies with which secondary schools conventionally attempt to discipline their pupils, represents

the failure of the school to fulfill its obligations to the society which supports it.

Possibilities of improvement. If the secondary school were to be devoted whole-heartedly to the necessity of putting young people into the possession of essential insights as quickly, easily, and effectively as possible, if there were disposition to look around a bit to select the most effective means of doing it, and if there were willingness to make use of obvious facts with reference to "bright" and "dull" pupils, it would not be difficult to make more progress than is now being made.

Characteristic differences in the instruction of the bright and the dull. There are certain differences in the personal characteristics of intellectually superior and inferior pupils and in their appropriate functions in life which have direct implications for determining the character of instruction to be offered in basic and essential courses. Some of these implications are incapable of complete and final proof. Those who are disposed not to accept them until they can be fully and finally substantiated by psychological and sociological evidence of unquestionable validity may well take into account the fact that the secondary school is a going enterprise confronted with problems so urgent and grave that some immediate and rather drastic remedies are necessary. Under the circumstances it is not unreasonable to make use of the following conceptions in attempting more adequately to provide for differential instruction in the basic constants of the secondary-school curriculum:

1. The superior pupil and the inferior pupil do not represent distinctly different types. They differ chiefly in degree. Furthermore, they live, and are to live, in much the same world. Hence, the differences in their education should be relative differences in quantity, scope, and emphasis.
2. The superior pupil is capable of developing and using in varied situations scholarly techniques for the acquisition and use of knowledge. Hence, it is desirable in his education to emphasize discipline in the methods by which dependable knowledge is acquired and organized for varied use.

The inferior pupil, on the other hand, finds much difficulty in acquiring competence in scholarly method. Furthermore, he lacks the intelligence which is necessary for its discriminating use in varied situations. Hence, it is wasteful to burden him with this useless (in his case) training.

3. As a corollary, the superior pupil should be expected to acquire much knowledge through his own search for it. His talents are such as to produce valid and dependable results.

The inferior pupil is relatively incapable of acquiring adequate knowledge and arriving at reliable judgments through dependence upon his own meager resources. If he is to have reasonably adequate insights and sound principles which will serve as the bases of right and efficient action, he must inevitably receive them from those who are sufficiently intelligent, benevolent, and skillful to put him into useful possession of them

4. The superior pupil has the capacity to acquire relatively large amounts of knowledge. He can comprehend not only the immediate but the remote, both the general and the specific. Hence, in dealing with any topic or fact, he may well study both the immediate present and the remote past, both the immediately local and the remotely distant, both the abstractly general and the concretely detailed and specific.

The inferior pupil is limited in the amount of knowledge which he may possess and use. Hence, in his case, there must be emphasis upon the proximate and the present.

5. The superior pupil has the potentiality of being a competent problem solver. Hence, matters which are uncertain or controversial may well be presented to him as such.

The inferior pupil cannot be expected to become a solver of problems and controversies which challenge the most intelligent minds. Emphasis on such matters will serve only to confuse and bewilder him, or possibly to encourage him to believe that his inadequate independent judgments are trustworthy.

6. The superior pupil may reasonably be expected independently to make discriminating and useful application of his knowledge to various practical situations in life. In other words, he has relatively high capacity for self-direction. Hence, in his education emphasis may well be placed upon the acquisition and organization of a considerable background of knowledge.

The inferior pupil has relatively little capacity for translating general backgrounds of knowledge into the foreground of action. Hence, the school has the unavoidable responsibility of attempting to provide him with generalizations and principles which are reasonably valid and useful in the direct guidance of his personal conduct. In contrast with the education of superior pupils, inferior pupils must not be burdened chiefly with the task of acquiring knowledge. Useful knowledge should be put into their possession as easily and as generously as possible, and they should be rigorously required to make some useful application of it.

7. Since it is to the advantage of everyone that intelligence shall be fully and widely utilized in the direction of human affairs, the superior pupil should be encouraged and expected to develop generously the abilities and attitudes which make for efficient and benevolent leadership.

For the same reasons, the inferior pupil should be encouraged and expected to develop the abilities and attitudes which are productive of appreciative and co-operative followership

Undoubtedly there are other principles which might well be added to these in an attempt to provide a basis for the detailed practical development of differentiated instruction in all subjects which deserve to be required as basic constants. There are, in addition, certain practical implications which might well be considered in some details.

Probable criticisms of proposals for differentiation of instruction. However, it is possible that these generalizations merit further explanation. In fact, there are probably some educators who object to them so strenuously as to demand some defense for them. It may seem to some that the general viewpoint reflected in them represents too much esteem for what might be called intellectual aristocracy and perhaps prejudice and disparagement with reference to pupils whose ancestors have not provided them with the heritage of genius. The curriculum and the instructional activities of the secondary school are offered similarly to the intelligent and the unintelligent, very much as the rain from heaven is said to fall both upon the just and the unjust. The proponents of these practices may feel that it is a sad thing to contemplate the lot of the inferior pupil if he cannot be trained as a scholarly researcher, if he cannot be encouraged to range widely into the dim past and the far reaches of the universe, if he cannot be made an independent problem solver, and if he cannot be encouraged to be a leader of men. It may be sad, but to attempt to do otherwise is to neglect or ignore the characteristics with which he is endowed.

Indoctrination and the dull pupil. Some may object on the ground that these principles seem to commend something very closely akin to indoctrination, and indoctrination is in bad repute. Indoctrination as an educational absolute certainly merits ill repute. Any attempt generally to present falsehoods or even partial truths, and to make the process effective by discouraging men from testing their validity by questioning them in the light of additional knowledge is stupid and harmful. However, we need not assume that the inferior pupil will escape something very much like the results of indoctrination even if we permit him and encourage him to be entirely independent in selecting his own facts and arriving at his own conclusions. His

selection of facts will in any case be meager, and any conclusions at which he arrives are likely to be faulty. It may seem very edifying to cause a group of inferior pupils to consult a half-dozen textbooks (all of which say much the same things in slightly different words), to record carefully in their notebooks sketchy verbal fragments, to discuss erratically and at length, pro and con so that every pupil will have opportunity to express what is supposedly his own judgment, and then as a result of this interaction of intellects arrive at a wise decision. In school the "wise decision" is the right answer. If the pupils finally manage to hit upon it, all is well; if they do not, the teacher, who is presumably emulating the advice of "educational theorists" by "remaining in the background," artfully supplies the right answer in such a way that the young philosophers whom she serves will assume that it is the product of their collective insight and intelligence. If wrong answers were acceptable to the people who make examinations, and if they were just as useful in life as right answers, it might be very desirable to encourage even the poorest pupil to depend solely upon the decisions produced by his meager knowledge and intelligence. As a matter of fact there would be no need for a school in such circumstances. The only reason for encouraging anyone, even the most intelligent pupil, to think independently is that this practice serves to provide correct and useful answers for the questions which must be answered. If independent thinking produces sound judgments which in the majority of instances result in intelligent action, it should be fostered. If it does not, it would be better to use other more dependable sources. Presumably the inferior pupil will be greatly helped if the school can equip him generously with sound and useful ideas which have been carefully tested by many persons whose wisdom and experience surpass anything that he may ever be expected to attain.

Leaders or followers? It is possible also that some may disagree with the idea that the school should attempt definitely to foster among inferior pupils a disposition to be followers of more intelligent persons whose superior intelligence is esteemed and respected. There are unfortunately some evidences in American life of conflicts with this ideal. We like to believe that we are potentially at least a race of "natural born leaders." Possibly because we have some gnawing suspicions that this may not be the case we are disposed frequently

to prefer that those whom we accept as leaders must have traits which mark them as folk no better than we are.

It would be to the common advantage if the secondary school were to promote the expectation that those pupils who are looked upon as superior will develop to the utmost their potentialities for competent, responsible, and benevolent improvement of the general affairs of all men.

It is inevitable that those who can and will supply intelligent leadership will receive certain privileges which are not ordinarily given to followers in rank and file. This is as it should be. But such privileges are incidental. The chief reason for the policy of developing competent leadership is the equally inevitable and vastly greater advantage which will accrue to those who are served by it.

Differences in standards of proficiency for different ability groups. Somewhat closely allied to this matter is the desirability of differentiating the standards of proficiency in the fundamental arts which are needed in connection with instruction in the basic subjects. Superior pupils have vastly greater capacity and continuing need for high levels of performance in reading, and in oral and written expression, than inferior pupils. Reading, which schools have traditionally emphasized for its economy in promoting extended vicarious experience, is particularly to be emphasized with respect to superior pupils. However, the inferior pupil may be expected to have relatively little need for a high level of reading ability, even if he were capable of attaining it. It is well to remember also that recent technological developments, particularly in radio and cinema, bring men so quickly and easily into vital contact with the world of affairs that books have lost some of their unparalleled excellence as media for reaching beyond the limits of direct personal experience. It is possible that the secondary school should normally expect of its inferior pupils very little ability to read. In any case, the minimum standard for inferior pupils should unquestionably be much lower than that for the superior. The differentiation with respect to abilities in oral expression should also be very considerable both quantitatively and qualitatively. Particularly among academicians, many of whom look upon linguistic standards as absolutes which admit of no adjustments to individual or occasional circumstances, lapses in pronunciation and grammatical expression are painful. A man who is otherwise a paragon suffers

great loss of prestige if he is caught in the act of mispronouncing a word. The schools are probably to blame for having fostered an inordinate emphasis upon the absolute importance of verbal behavior. Unfortunately this emphasis has resulted in making some persons uncomfortable in the possession of relatively inferior but reasonably adequate linguistic abilities, and at the same time persons who have the capacity and need for very high levels of ability have commonly failed to attain them. Instead of endeavoring to make all pupils proficient in speaking formally before audience-groups, thereby enforcing a necessarily mediocre standard of grammatical expression for all pupils, the secondary school might advisably do less for inferior pupils and impose upon the superior pupils much higher standards than are customary at present. It is to be expected or at least hoped that inferior pupils will not ordinarily become clergymen, teachers, labor leaders, senators, or radio commentators. On the other hand, superior pupils will do such things. The folk who have to listen to them would be saved a good deal of needless suffering if they were more highly skilled in the arts of oral speech than most of them are at present.

Bright and dull pupils and the art of writing. Particularly in the arts of written expression the secondary school now imposes upon inferior pupils requirements which are probably very much out of line with their subsequent needs. In the ordinary affairs of life written communication becomes less necessary, and it is not to be expected that inferior pupils will ordinarily become authors of literature. In the present situation the school demands more writing even of superior pupils than most of them will ever have occasion to do elsewhere. It is possible, however, that the school may reasonably demand that superior pupils write very much better than many of them do at present, and that both in quality and in amount the standards for inferior pupils should be very greatly diminished.

Teachers may be expected to have some misgivings about these proposals, for they have become accustomed to assume that the school's traditional practices are reasonable and necessary. They may be encouraged somewhat if it is recognized that the effectiveness of their work and the ease of doing it should be increased by setting up markedly differential standards for all instruction in basic constants.

Remedial training. Even if standards are uniformly differentiated

to suit superior pupils and inferior pupils, it will be necessary to supply some special remedial work. This remedial training may well be supplied to pupils individually on a clinical basis. Specifically, whenever it is discovered that a pupil fails to attain the minimum standard for his group-classification in any phase of ability to read or to speak or to write, he will be referred to the remedial clinic for definite diagnosis of his particular deficiency and special remedial instruction or training. This special remedial work will continue in his case only until his deficiencies have been corrected.

Changes needed in classroom practice. These considerations lend further support to the assumption that the secondary school might well modify considerably its conventional instructional techniques and materials, particularly in the education of superior pupils and of inferior pupils. The instruction of pupils who may be designated as average is less in need of reform. It has already been observed that the movies are effective in communicating ideas and ideals to large numbers of people. It is significant that they are presented to large audiences and that the motion picture is so carefully constructed and presented that its "message" is conveyed to these audiences without the necessity of badgering them continually with questions and examinations. Churches, "legitimate theaters," publishers, and advertisers, in fact, almost all sorts of agencies and institutions which must put folk in the possession of ideas and ideals of one sort or another, depend chiefly not upon what they get the "learner" to do but upon what they themselves can do to insure effective presentation. If the clergyman discovers that too many of his intended listeners are going to sleep, he does not ordinarily stoop to the practice of embarrassing the sleepy-heads by asking them questions during the church service. The playwright and the players likewise usually assume that their performance must be made so clearly understandable and so deserving of attention that it will not be necessary to ask their prospective patrons to study a book for forty minutes before they appear in the theater or to interrupt the play by asking the audience frequently to demonstrate by oral explanations that they have understood what they have seen and heard. Merely to mention these practices is to suggest how fantastic and unsuitable they are. Clergymen, and playwrights, and advertisers have as many "dull pupils" as school teachers have. But they take pains to make discriminating use of modes of presenta-

tion which will put folk into the possession of information, ideals, and motives with very little effort on their part. Particularly in the instruction of inferior pupils the secondary school has much to learn from other institutions which have had long experience in similar enterprises.

Changes needed in training of teachers. Perhaps one reason for the schools' failure to capitalize these well-tried measures is the fact that only recently have schools undertaken the task of educating large numbers of unscholarly pupils and that secondary-school teachers are not generally very competent in the arts of the pulpit, stage, and press. In fact, teachers generally are so meagerly equipped with the skills needed by speakers that they have come to believe that a lecture is intrinsically futile.

In fairness to teachers it must be admitted that even the most able lecturer would scarcely be successful in making secondary-school pupils give responsive attention to much of the content of the conventional curriculum. Possibly, since pupils appear to take no active interest in subject matter which is of no particular concern to them, teachers have been driven to require their pupils to write, to read, to attempt to talk — all in the vain effort to maintain a semblance of interest. Attempts to revise the emphases in the curriculum for inferior pupils and to develop instructional procedures suited to their needs will mutually facilitate one another.

Sources of new methods for the classroom. Improvement of instruction for superior pupils requires looking beyond the four walls of the secondary school to find suitable procedures. Since there should be provision for emphasis upon independent study and scholarly and scientific methods of research, other institutions in which these activities are emphasized may offer promising examples for emulation. Although secondary schools may have suffered so many indignities at the hands of the colleges that they are disposed to wonder whether any good thing can come from them, it is significant that particularly for their more able and mature students universities do make some provision for seminars and research courses, which commonly involve much emphasis on bibliographical studies, as well as laboratory investigations and field studies. Other institutions which are primarily devoted to research make occasional use of informal small-group conferences composed of individuals interested in similar re-

search subjects. To a considerable degree their work is done by individuals who can efficiently pursue their investigations independently, although their work is carefully organized and co-ordinated with that of other persons. When enough progress has been made to warrant report on it, or when unforeseen difficulties or problems suggest the need for joint consideration and co-operative attack, group conferences occur. These methods of procedure have been demonstrated to be useful particularly for those persons whose superior abilities make them appropriate. There appears to be no intrinsic reason why the secondary school might not well employ them in the education of superior students at work in the basic subjects. Of course, library facilities would need to be improved, the stereotyped regimen of the time-schedule of classes would have to be made more pliable, and teachers and administrators would have to learn to be content in giving superior pupils much more responsibility and freedom of action than they are ordinarily given at present. However, these necessities are not too difficult of attainment if there is serious intent to provide suitable education for superior pupils.

OPPORTUNITIES FOR THE DEVELOPMENT OF SPECIAL INDIVIDUAL INTERESTS

The foregoing discussion has been concerned with instructional differentiations in the basic constants, the subjects concerning which it is desirable to develop the fullest possible measure of insight and interest among all youth. This is an exceedingly important part of the secondary-school's work; in fact, there is reason to assume that it is the most important. However, the secondary school is also committed at least by custom and precedent to provide, as generously as its resources permit, additional training of relatively specialized character to suit the distinctive needs of some pupils. Because training of this sort is valuable only in relation to the distinctive needs of certain persons it should be strictly eliminated from the basic courses which are offered to all pupils. Justification of this distinction and separation is obvious. But the segregation of specialized training in a separate division of the school program offers some very important advantages in effective provision for individual differences in ambi-

tion, talent, and need. These advantages are such that mere description of practical possibilities should serve to make them apparent.

Needed reorganization of elective courses. To provide as flexibly as possible for the individual needs of particular pupils there should be organization of elective courses for these pupils into very specialized units of instruction and training. Instead of offering one omnibus course in the use of French, specialized courses in the reading of French, the writing of French, the speaking of French, and possibly the study of the grammatical anatomy of the French language may be offered as distinctive units, each capable of being taken separately.⁷ Thus the person who needs only one ability may develop it assiduously without wasting time in the nominal pursuit of other abilities for which he has neither desire nor need. The person who has the ambition, need, and talent to pursue all of these matters can do so. In the same way the person who would learn how to make hooked rugs, fancy embroidery, pastries, costume designs, plans for efficient kitchens, or to can fruit, to do machine sewing, or to nurse the sick would be able to get training or instruction in any of them without having to enroll, as at present, for a miscellaneous collection of types of training designated as "Home Economics." Just as it is assumed that a person may well be allowed to learn how to play a musical instrument without being required in addition to learn how to play all or several of the instruments usually represented in a band or orchestra, it is assumed that a pupil may well be allowed to develop a specific ability without being required also to develop in addition many more abilities which are sometimes used in connection with it.

Individualized work in specialized electives. A further provision which would greatly facilitate adjustment to individual needs is the practice of organizing these highly specialized courses so that pupils may undertake them individually. Each pupil undertaking one of these courses would be expected ordinarily to take it as an independent individual project to be carried on as rapidly as his individual talents and his available time permit. In some cases this would be impracticable. For example, pupils wishing to learn to speak a foreign language would profit by undertaking it as a joint enterprise, although even in this case it would be a detriment to use large groups,

⁷ If one is to learn how to write French, he must, of course, be able to read it, but he may read fluently without comparable ability to write it.

as contemporary attempts amply demonstrate. However, pupils learning how to read a foreign language certainly do not need to attempt it as a social enterprise. Reading is decidedly not very efficiently managed when it is attempted as a co-operative undertaking. Similarly many of the other specialties in which particular students have occasion to develop competence are most efficiently learned individually.

Importance of flexibility. A number of additional provisions can be made depending somewhat upon the extent to which the school is successful in organizing these specialized electives on a truly specialized basis and administering instruction or training individually. They are justified both for their intrinsic educational merits and for the fact that they facilitate the attempt to offer a generous and varied program of specialized electives. For instance, each individual who is allowed to take one of these courses should be permitted to continue in it until he has completed it, or to discontinue it whenever it becomes apparent that he is not making satisfactory progress or whenever it appears that he is making an unwise investment in devoting further time to it. In any case he should receive no scholastic "credit" for it, neither should he be assumed to have failed. His record merely shows fully what he has learned to do, and perhaps how much time he has spent in learning it. There are, of course, some folk who believe that a thing once begun should be "finished," no matter how futile, or wasteful, or unwise added experience has proven it to be. It must be remembered that this questionable policy is partly to blame for the fact that many secondary-school classes at present are bogged down with the burden of many pupils who have long since given up any expectation of achieving anything and are merely waiting until the end of the year releases them. After all, we are here concerned with elective specialties.

If these provisions are made many of these courses should be administered chiefly or largely on a self-instruction basis. Those who think in terms of present school conditions may suspect that this would not be feasible, if only for the reason that pupils would not do anything unless they were continually under the personal supervision of a teacher whose function it is to be director, policeman, and goad. Unfortunately this is largely true of much that goes on in schools at present, and one cannot but wonder how this practice is to be

expected to produce in pupils competence to do much on their own initiative and responsibility after they leave the watchful ministrations of their teachers. However, the recommendation of self-instruction is based on the assumption that the policy of offering highly specialized courses, administered individually so as to permit pupils to accomplish as much as talent and time permit and so as to allow pupils without discredit to discontinue a course at any time, will mean that pupils taking these courses will ordinarily have considerable sense of purpose and will desire to make the most efficient use of their time and opportunities. A very important element in a practical attempt to emphasize self-instruction is the extent to which the school can supply to pupils useful manuals for the guidance of their work and flexibly available equipment and materials for their use.

Miscellaneous considerations. The general adoption of these policies for the organization and direction of a generous program of specialized elective courses would naturally involve the transfer into this division of the educational program of a number of the courses now offered in year or semester units and as the supposed equivalents of basic courses. It would be necessary to revise these courses considerably, chiefly by dividing them up into the several specifics of which they are now composed. This would be particularly necessary in the case of the conventional omnibus courses in the vocational and practical arts. Much of the work which is now relegated to the scholastic no man's land which we call the extra-curriculum might very appropriately be allocated to this division, where it might be expected to become somewhat more substantial than much of it is at present.

Possibly the designation of this division of the secondary-school program as elective is somewhat misleading and disturbing. It does not mean that it is entirely subject to the whims and preferences of pupils. The school may wisely require certain individuals to take some courses which are classified as elective, and set up certain prerequisites for admission to some types of specialized training.

In contrast with that division of the educational program which is concerned with instruction in basic facts of general concern for everyone, instruction and training in the specialized electives presumably involves no necessity for anything like homogeneous grouping. In fact, the highly specialized nature of the courses and the individualized

character of their administration inherently insure the advantages which homogeneous instruction in the basic subjects can at best provide only partially. Personal guidance of pupils and the employment of selective standards of admission to specific courses will serve to weed out those who have no reasonable prospect of satisfactory attainment.

In conclusion it should be admitted with candor that the actual merits of the types of provisions for individual differences which are here emphasized remain to be tested in the realities of school practice. Their potentialities may be speculative, but that unfortunately is a limitation which can scarcely be avoided by any attempt to meet this relatively new and urgent problem. Not only must the theoretical validity of such proposals be carefully weighed in order to judge whether they appear to be reasonable as goals toward which to work, but there must be consideration of the probabilities that those who are charged with the responsibility of directing the development may be able and willing to make them effective. In any case, the secondary school is now squarely confronted with the necessity of adapting its program both to the high potentialities and the hazardous limitations of its pupils, all of whom it must help to face the future with wisdom and courage.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. With reference to a particular secondary school, consider the possible desirability of applying regularly a definite policy of excluding certain pupils from school.
2. In one or more secondary schools investigate the extent to which pupils are enrolled in certain courses chiefly because they have been unsuccessful in other courses. Evaluate the merits of the conditions which you discover.
3. Obtain information concerning the numbers of pupils involved in each of the following methods of providing for individual differences:
 - a. Failure and repetition of courses
 - b. Enrollment in more than the usual number of courses
 - c. Skipping courses or parts of courses
 - d. Homogeneous organization of classes
4. Some persons believe that it would be desirable to provide for pupils of different levels of mental ability by segregating them in separate schools. Consider the probable merits and disadvantages of such segregation.

5. Some educational authorities assert that there is something which each individual is "peculiarly fitted" to do. Is this true? What of it?
6. Investigate the relative standing of the same pupils in different school subjects. How do you account for the disparities and similarities?
7. Interview a number of teachers of various subjects to get their estimates of the percentages of pupils in their courses who do unsatisfactory work because they have not enough native ability.
8. Consider in detail the situations in out-of-school life which make it appropriate for some persons to develop excellence in reading, writing, or speaking, and for others to have only very meager skill in them.
9. Should it be expected that as a result of their secondary education young people should be more alike or more different? Why?
10. Consider the relationship of various specific provisions for individual differences to ideals of democracy.
11. Although many secondary schools have increasingly classified their pupils, so that superior pupils and inferior pupils enrolled in the same subjects are separately grouped for instruction, there has not been much progress in developing modes and materials of instruction appropriately differentiated for these different groups. Select some basic subject which should be taught to all pupils, and work out a plan for the selection of materials and suitable activities for teachers and pupils in these two groups.
12. As most secondary schools are ordinarily conducted, the individual classroom teacher has to make whatever adjustments are feasible within a class which includes wide variations in ability and interest. Most teachers are not very successful in coping with this situation and providing systematically for differences in their pupils. In exceptional instances, however, teachers have worked out modes of classroom organization and management which seem at least to be workable. Make a systematic survey and analysis of published reports of such instances in the effort to develop certain innovations by means of which more teachers may be more successful in providing for differences among pupils in the same class without any undue increase in the work required of the teacher.
13. For the most part the elective subjects offered to secondary-school pupils are somewhat narrowly academic in character and are not very well suited to provide opportunities for pupils in general to develop their particular talents or to learn to do many things in which they have peculiar individual need to develop proficiency and competence. Assuming the desirability of offering a much broader variety of types of special training, work out a reasonably satisfactory program of elective opportunities for a secondary school with which you are particularly concerned.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF
INDIVIDUAL DIFFERENCES AND PROVISIONS FOR THEM*General*

Because of the relative recency of the problem of individual differences, as we now conceive it, there has not been accumulated any large body of general literature on the subject. What we do have is uneven in quality and variable in scope. The books here to be recommended have been roughly classified in three groups. The first includes materials which are either sufficiently readable to have some appeal to the general reader or broad enough in scope to cover a number of aspects of this general field. The second group of books is concerned predominantly with the characteristic differences of individuals, and the third group is directed chiefly at provisions for individual differences.

The books by Ellis and Freeman are general textbooks providing simply stated, reasonably comprehensive and somewhat introductory discussions of individual differences. Hollingworth's book is very similar, except in being more limited in scope and accordingly somewhat more intensive in treatment. The little book by Goddard is very readable, but it will not serve very well as an introduction to the field, since it is a somewhat biased description and argument for certain special measures which the author greatly esteems. Kelher's study is also somewhat biased, but her approach to the problem is so broad and her critical analysis so thorough that she provides a very stimulating experience for the reader. The yearbooks of the National Society contain a variety of materials. Perusal of them will be helpful to the general reader, and the specially interested student will wish to select parts of them for careful study. The First Assistants in the New York City high schools present much concrete description of practice which will be illustrative and suggestive to teachers who are looking for ideas which they can apply directly in their own work. Osburn and Rohan are also very helpful in this way. Their book is exceptional in suggesting a much broader conception of educational experiences for pupils than is ordinarily encountered in books in this field. It happens also to be quite readable. Sauvain's study is informative and reasonably easy to read. The White House Conference report is a good introduction to the problem of those who deviate markedly from the normal.

Ellis, Robert Sidney: *The Psychology of Individual Differences*. New York: D. Appleton Co., 1928. 533 p.

First Assistants in the High Schools of New York City: *Educating Superior Students*. New York: American Book Co., 1935.

Freeman, Frank S.: *Individual Differences*. New York: Henry Holt & Co., 1934. 355 p.

Goddard, Henry Herbert: *School Training of Gifted Children*. Yonkers-on-Hudson: The World Book Co., 1928. 226 p.

- Hollingsworth, Leta S.: *Gifted Children, Their Nature and Nurture* New York: The Macmillan Co., 1926. 374 p.
- Keliher, Alice V.: *A Critical Study of Homogeneous Grouping*. (Contributions to Education, no. 452.) New York: Teachers College, Columbia University, 1931. 165 p.
- National Society for the Study of Education: "Adapting the Schools to Individual Differences." *Twenty-Fourth Yearbook*, Part II. Bloomington, Ill.: Public School Publishing Co., 1925. 410 p.
- : "The Education of Gifted Children." *Twenty-Third Yearbook*, Part I. Bloomington, Ill.: Public School Publishing Co., 1924. 443 p.
- Osburn, Worth J., and Rohan, Ben J.: *Enriching the Curriculum for Gifted Children*. New York. The Macmillan Co., 1931. 408 p
- Sauvain, Walter H.: *A Study of the Opinions of Certain Professional and Non-Professional Groups Regarding Homogeneous or Ability Grouping*. (Contributions to Education, no. 596.) New York: Teachers College, Columbia University, 1934. 151 p.
- White House Conference on Child Health and Protection: *Special Education; the Handicapped and the Gifted*. New York: The Century Co., 1931. 604 p.

Nature of Individual Differences

The reader who wishes to go on to consider special studies of individual differences in pupils will find all of the books listed below more or less difficult, highly specialized, and usually technical in treatment. The bulletin by Cornell is particularly difficult and should not be used by those without considerable insight into statistical and experimental method in education. The titles of these studies are accurately indicative of their content, and the advanced student will find some very significant facts presented in them.

- Baker, Harry J.: *Characteristic Differences in Bright and Dull Pupils*. Bloomington, Ill.: Public School Publishing Co., 1928. 118 p.
- Brown, Andrew Wilson. *The Unevenness of the Abilities of Bright and Dull Children*. (Contributions to Education, no. 220.) New York: Teachers College, Columbia University, 1926. 112 p.
- Cornell, Ethel L.: *Effect of Trait Differences in Ability Grouping*. Albany: The University of the State of New York, 1931. 26 p.
- Coy, Genevieve Lenore: *The Interests, Abilities, and Achievements of a Special Class of Gifted Children*. (Contributions to Education, no. 31) New York: Teachers College, Columbia University, 1923. 194 p.
- Division of Anthropology and Psychology of the National Research Council: *Conference on Individual Psychological Differences*. Washington, D.C., 1930. 246 p.

- Lamson, Edna Emma: *A Study of Young Gifted Children in Senior High School*. (Contributions to Education, no. 424.) New York: Teachers College, Columbia University, 1930. 117 p.
- Portenier, Lillian G.: *Pupils of Low Mentality in High Schools*. (Contributions to Education, no. 568.) New York: Teachers College, Columbia University, 1933. 109 p.
- Turney, Austin Henry: *Factors Other than Intelligence that Affect Success in High School*. Minneapolis: The University of Minnesota, 1930. 135 p.

Provisions for Individual Differences

Most of the books mentioned here are somewhat less rigorous in treatment and not so limited in scope as the studies of individual differences. Billett's National Survey report is extended in treatment and comprehensive in content. The average reader is likely to find it somewhat tedious, but he can obtain from it some very definite ideas about what typical schools throughout the country are doing, or think they are doing, to provide for individual differences in their pupils. Odell's bulletin is in some ways similar, but he has sought not so much to be statistically descriptive of the general level of average practice. The research studies by Broady, Burr, Dransfield, and Purdom contain some very useful facts. The latter study particularly has been very widely used. Although the little book by Ryan and Crecelius has been in print for some time, it is a clear and careful analysis, and can be more easily read than other equally specialized studies. The book by Segel is competently written and deals not so much with administrative provisions of differential treatment of pupils as with procedures for the identification and measurement of differences to be provided for.

- Billett, Roy O.: *Provisions for Individual Differences, Marking, and Promotion*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 13. 472 p.
- Broady, Knute O.: *School Provision for Individual Differences*. (Contributions to Education, no. 395.) New York: Teachers College, Columbia University, 1930. 101 p.
- Burr, Marvin Y.: *A Study of Homogeneous Grouping in Terms of Individual Variations and the Teaching Problem*. (Contributions to Education, no. 457.) New York: Teachers College, Columbia University, 1931. 69 p.
- Dransfield, J. Edgar: *Administration of Enrichment to Superior Children in the Typical Classroom*. (Contributions to Education, no. 558.) New York: Teachers College, Columbia University, 1933. 107 p.
- Odell, Charles W.: "Provisions for Mentally Atypical Pupils," *University of Illinois Bulletin*, vol. XXIX, no. 6. Educational Research Bulletin, no. 59. Urbana: University of Illinois, 1931. 73 p.
- Purdom, T. Luther: *The Value of Homogeneous Grouping*. University Re-

search Monographs, no. 1. Baltimore: Warwick & York, Inc., 1929. 99 p.

Ryan, Heber Hinds, and Crecelius, Philipine *Ability Grouping in the Junior High School*. New York: Harcourt, Brace & Co., Inc., 1927. 223 p.

Segel, David *Differential Diagnosis of Ability in School Children*. Baltimore: Warwick & York, Inc., 1934. 86 p.

THE EDUCATIONAL PROGRAM IN ITS ENTIRETY: UNDERLYING THEORIES AND ISSUES

CONSIDERATION one by one of the diverse undertakings of the secondary school gives only a partial insight into the high school's strengths, its weaknesses, and its potentialities. To gain any comprehensive view of the secondary-school program one must also consider the underlying theories, motives, and conditions which influence the program and the inter-relationships, scope, and appropriateness of the program in its entirety.

Consistency and diversity in the educational program. From certain standpoints there is considerable similarity in various phases of the instruction and training provided in secondary schools. For example, in almost all academic subjects equivalent amounts of time are allotted for class meetings; books, usually textbooks, are the primary sources of instructional material; pupils work in groups; reading, oral recitation, and written exercises are typical activities; pupils are expected somewhat obediently to do specifically and exclusively what is currently demanded by the teacher; and ordinarily the chief measure of their achievement is a formal examination in which the evidence of what they have learned is what they write on examination papers. These things are so traditional that they may be expected by a pupil no matter what subject he takes.

Certain subjects emphasize technical competence. There are, however, several important types of differences among the several school subjects, particularly if we consider their predominant general qualities. Specifically, some subjects are suitable primarily for the development of technical proficiency or performance ability. For example, courses in foreign languages and in mathematics and many of the practical arts are chiefly used for the production of skill or technical ability. We are not here concerned with what their proponents say in behalf of these courses, but with the predominating char-

acter of actual instruction in them. Pupils who spend most of their time in repetitive drills in reading, or writing, or speaking French are supposedly acquiring skills. The same thing is true of the pupils who repeatedly practice mathematical exercises. If anyone doubts this, let him examine any of the commonly used textbooks in algebra or geometry, or observe the activities which are almost universally characteristic of mathematics classes. Similarly, the majority of courses in the commercial subjects and the industrial arts are largely devoted to the development of skill in technique.

Some subjects emphasize factual knowledge. On the other hand, some secondary-school subjects are so taught as to contribute chiefly to the acquisition of knowledge or the understanding of facts. For the most part instruction in history and the social studies is of this type. Courses in natural science as well give much emphasis to the development of knowledge, particularly at the lower grade levels, although the advanced physical sciences combine factual instruction with training in certain technical abilities. The teaching of English also is a combination of the development of knowledge, in connection with the study of literature, and the production of performance skills in linguistic expression.

Variety of approaches in different fields of instruction. The various fields of instruction in which knowledge is an important outcome also exhibit a variety of approaches to the facts with which they deal. In some of the social studies considerable use is made of a chronological mode of organization, emphasizing historically remote facts. Other social studies, community civics, economics, and sociology for example, largely ignore the past. The natural sciences also are presented as if their historical development were relatively unimportant. As a general result the pupil might reasonably be excused for assuming that science either has no past or has long been as it is now. If he happens to take historical subjects, he is likely to know relatively little about social conditions of the present, and if he takes other social studies he is likely to be equally ignorant of the past. The field of English instruction has certain peculiarities in the criteria which influence course content. As far as the teaching of literature is concerned, English is defined not so much as a field of knowledge as a mode of approach to expression of knowledge. The course in English may present almost any field of knowledge provided it is dealt with

in a book of acceptable literary merit. Traditionally, the topical content of subject matter in the teaching of literature has been concerned with individual human nature, personal ethics, and philosophy. Of late there is an increasing tendency to spread out into various fields of knowledge, and pupils in literature classes may be reading about geography, politics, the arts, natural science or almost anything else that is presented in print.

Variety of organization in different fields of instruction. Various courses differ also in their bases of organization. Some courses dealing chiefly with knowledge are organized after conventional classifications of knowledge, for example, chemistry, biology, or economics. Others are organized as fusion courses, as in the case of general science and certain social science courses. A quasi-functional basis is used also, particularly in the teaching of home economics and agriculture. In such courses as community civics, general science, economic citizenship and health, a fusion type of organization is combined with the attempt to apply the instruction directly to the guidance or direction of the pupil's activities and duties in life.

These differences are considerable. Although teachers may take them for granted, they are probably more important from the point of view of the pupil. He may not be aware of reasons for these disparities and inconsistencies, and he sometimes finds serious difficulty in adapting himself to them.

Completeness and partiality in the educational program. In addition to the internal consistency or integral harmony of the program of instruction and training it is well to consider the total extent of the territory it covers in one way or another. If the educational program is to present facts, it is pertinent to ask what kinds of facts are presented and what sorts of facts may be omitted. If the program offers training in techniques, the techniques included should perhaps be compared with those which are neglected. Obviously a survey of this sort must inevitably be somewhat general and cursory, but it is hardly necessary to delve into particular details to find pertinent evidence.

There is no single outline of the potential fields of knowledge which all would accept as an appropriate standard by which to measure the completeness or the partiality of the factual territory covered by the secondary-school curriculum. But, by using the subjects commonly offered in schools as a starting-point, it will be possible at least partially

to canvass what is included and what is omitted. The field of English instruction involves both presentation of facts and provision for training in linguistic skills. The factual content is concerned with a miscellany of fields of knowledge, the nature of which is dependent upon the particular literary selections which are used. Traditionally, these selections have dealt chiefly with individual human nature. They have portrayed the character, the motives, the actions and reactions of individual human beings. The pupil studying literature has had to consider the causes and consequences of the behavior of many types of individuals. Stated in usual terms, his studies in literature have involved facts with reference to psychology, philosophy, and personal ethics. The amount of emphasis upon these general fields of knowledge depends both upon the literary materials selected for use and the predilections of the instructor. It is therefore impossible to estimate precisely the extent to which secondary-school pupils are put in the possession of concepts concerning the nature and significance of the distinctive qualities of human personality. It seems probable that the somewhat casual and unsystematic character of instruction in these matters results in the omission of many significant concepts with reference to human personality and personal ethics.

Inclusion of humanities in the field of English. If the secondary-school curriculum is intended to present facts or concepts, it appears to be highly desirable that materials with reference to human nature should not be ignored. If the pupil is in need of clear insights with reference to any field of knowledge, he certainly needs them in connection with the things which make men distinctively human. It is not necessary to belittle the importance of knowledge with reference to the natural environment, or the social culture, or the special arts and techniques which men have developed in order to recognize the importance of understanding of what is implied in the term "humanities."

Recent tendencies to extend the boundaries of the teaching of literature may diminish the attention paid to facts with reference to human nature. Rather than being diminished, the presentation of materials concerning individual humanity should probably be increased. If instruction in English is permitted to neglect this responsibility, it may be necessary to use other media for increasing the attention given to this highly significant field of knowledge.

Some persons, particularly those who have not been aware of the extent to which English instruction has dealt with them, may assert that references to psychology, philosophy, and personal ethics are beyond the grasp of the immature minds of secondary-school pupils. The fact that the terms, psychology, philosophy, and ethics, are customarily used to designate college courses in this general field of knowledge does not necessarily imply that significant psychological, philosophical and ethical concepts are too difficult for secondary-school pupils. It must be remembered that mathematics, history, biology, music, and many other subjects commonly taught in colleges are also taught in secondary schools, and in some cases even in the primary grades of the elementary school. There are many concepts with reference to the mind and spirit of man, the qualities, potentialities, and problems making man human, which merit thorough instruction in order to develop in young people adequate insight and appreciation.

Historically the makers of literature, our prophets, poets, novelists, and essayists, have been acute observers of the subtleties and complexities of human personality. It is no mere accident that the teacher of high-school English has been to some extent a teacher of humanities. Since we have but recently begun to develop and systematize this field of fact and to capitalize the scientific approach to the study of individual personality, it is not surprising that the secondary school has not yet generally undertaken to provide a similarly systematic introduction to the study of humanities. If the secondary school is intended to present to young people an appropriate introduction to important fields of knowledge, this field apparently deserves to be more thoroughly developed.

English instruction is also customarily concerned with facts and concepts concerning literature as an art form. Its supposed purposes, its formal qualities, the processes used in its creation, and the personal qualities of the creators of literature as a form of art are intensively analyzed. Since instruction in these matters is presented continually in the several grade levels of the secondary school, it is probable that literature as an art receives enough attention. In fact it is possible that, in comparison with the other arts, literary art is emphasized somewhat unduly.

Neglect of art in the curriculum. Passing to review briefly those parts of the curriculum which are specifically designated as courses in

art, it is strikingly apparent that most of the arts are neglected. Few of the arts are represented at all, and those which are included are represented by courses of technical training and not by instruction to increase understanding and appreciation. In fact, the art of literature, nominally classified as English, probably is given more time than all of the other arts. In the typical secondary school both the fine arts and the so-called useful arts are conspicuously absent, except for a few training courses intended to develop craftsmanship. The pupil who needs knowledge of architecture, sculpture, and other plastic arts; the graphic arts; the arts of the theater; the useful arts of medicine and healing; engineering and technology; agriculture; mechanic trades; and even of the amusements which play so large a part in contemporary culture will find only inconsequential vestiges of it in the secondary-school curriculum. In some of the larger schools there is some opportunity for increased understanding of these fields by enrolling in technical training courses, but this is obviously unwise and impracticable for most students. Consequently the secondary-school curriculum seems to imply that the pupil who is not to become a technician or producer needs little or no understanding or appreciation of these matters.

Training in mathematics and linguistics. However, the field of the arts and techniques is not adequately assessed without taking into account training or instruction in mathematics and linguistics. The secondary school is traditionally the stronghold of training in these particular arts. Especially if he is an academic student, that is, a candidate for increased knowledge rather than technical training, the secondary-school pupil is expected to take large amounts of technical training suited to carry him in the direction of becoming a mathematician and a linguist. If he can keep abreast of these technical disciplines he is likely to acquire incidentally a considerable collection of the sort of factual details which are instrumental to competent technical performance in these arts. If he cannot or will not submit to these technical disciplines he loses his chance of becoming a linguist or mathematician. In either case, however, he gains little as far as broad insight concerning the character and cultural significance of these arts is concerned. The courses in mathematics and in the several foreign languages typically neglect the presentation of facts concerning the historical or cultural significance of these arts. They are

innocent of any substantial reference to the persons who have developed them or to the parts which they play in our civilization. Although they present a considerable body of factual details, the mathematics and language courses are primarily concerned with the development of technical ability and the facts presented are instrumental to its production. On the whole, the secondary-school curriculum, in spite of the generous allotment of time to mathematical and linguistic training, provides very meagerly for the presentation of facts with reference to the significance of these arts.

Facts concerning the natural environment. The curriculum is somewhat better equipped for the presentation of facts about the natural environment. The science courses are relatively factual in character, although some of them are adulterated with training in the skills of the laboratory technician. The science courses in their entirety seem at least superficially to represent the full scope of facts with reference to the natural world. Astronomy, botany, chemistry, geology, physics, and zoology are represented in some degree, so that the situation in science is somewhat better than that in the humanities and very much better than that in the arts. However, there are some branches of natural science which seem to be emphasized at the expense of others which are at least equally meritorious. Specifically, physical science is much more fully represented than biological science. Of the courses commonly offered, general science, physical geography, physics, and chemistry are either chiefly or exclusively concerned with physical science. Biological science is ordinarily represented only in minor portions of general science and in a general course in biology or in botany and zoology. If natural science instruction were planned for the purpose of instructing inanimate machines, this type of emphasis might be justified, but in the education of human beings it might be expected that biological facts would be at least as important as those concerning the physical world, if not more important. The several courses in natural science tend to emphasize somewhat narrowly the particularities which are the province and the delight of the advanced specialist to the neglect and disparagement of a broader range of knowledge. However, in spite of these limitations, facts in the field of natural science are represented more fully than those in the humanities and the arts.

Facts concerning the social environment. The secondary school's

presentation of facts with reference to the social environment is, as we have seen heretofore, difficult to characterize even roughly because of the diverse practices in different schools. Where histories are the chief social-studies courses emphasis is given detailed narrative with reference to dynastic, political, and military affairs of temporally remote peoples of the Mediterranean basin, Western Europe, and America. In schools where brief courses in economics, civics or sociology are available the pupil has the opportunity to acquire a few facts with reference to their general principles and related phenomena in the present world. However, if fusion courses in social science are offered it is almost impossible to predict the nature of the facts which are presented in particular schools, except that they will probably be a combination of history and various social studies.

This brief survey is sufficient to indicate that even if a pupil were to take all of the courses in the secondary-school curriculum the general pattern of his knowledge would be decidedly sketchy and incomplete. He might know nothing, or at best he would know a little, of the field of knowledge suggested by the terms psychology, philosophy, and personal ethics. He would probably know much of literature as a form of art, and little or nothing of other arts. Of the natural environment his knowledge might be considerable, but partial. His understanding of the nature of social phenomena would also be considerable, but by no means comprehensive. However, most secondary-school pupils take only a small portion of the total offering of courses in which the presentation of knowledge is a primary function. The actual programs of individuals frequently represent only a very meager and fragmentary aggregation of factual materials.

Some pupils are likely to have programs in which assorted segments of knowledge are predominant; others are outfitted with equally miscellaneous programs in which technical disciplines of one sort or another are the chief ingredients.

This situation may not impress some folk as being extraordinary or questionable. Anyone who has spent many years of his life as a pupil in such a school is likely to take it somewhat for granted, and if one has lived with it not only as a pupil but as a sponsoring teacher or school administrator such a program is likely to appear to be commendable and preferable to anything different. Whether one regards this sort of program with complacency or with feelings of doubt and

apprehension, there remain related factors and problems which merit consideration.

Indiscriminate character of the curriculum. The nature of the secondary-school curriculum implies that desirable education of American youth consists of a combination of acquisition of understanding and technical ability. Apparently the relative proportions of knowledge and skill may vary in individual instances, and it seems relatively unimportant what sort of knowledge or what sort of skills the pupil acquires. He is assumed to be educated if he has acceptably used a certain number of hours per week in learning something or other during his high-school years. Skill in the preparation of colored posters for advertising purposes is just as acceptable for credit as skill in the manipulation of algebraic polynomials, and either is accepted as the educational equivalent of understanding the biological mechanisms of human heredity or the functions of appellate courts in the administration of justice. Why should secondary education be so indiscriminate?

It is only fair to say that it is indiscriminate chiefly when looked upon as a whole. Actually the several vested interests which are the component elements of the secondary school as an administrative unit are much more discriminating. The sponsors of mathematics do not believe that it is just as well to be able to prepare edible strawberry shortcake as to have skill in the construction of geometric figures, and the advocates of instruction in biology believe that it is more valuable to understand the digestive processes of plants than to make accurate use of irregular French verbs. The curriculum as a whole appears to be a miscellaneous and partial hodgepodge partly for the reason that its professional sponsors are not in agreement as to the appropriate nature or function of the educative process. The apparent agreement as to the equivalence of subjects is merely a sort of truce or *modus vivendi* which permits a congeries of conflicting interests to do business under one roof.

Influences affecting the character of the educational program. It would be an impossible task to identify all the influences which make the educational program what it is. It would be even more difficult to measure the weight and potency of the influences which are easily discernible. Some of them are rationally formulated and zealously advocated theories. Others are unremitting customs and traditions

which, even though they may not be approved or fostered by educators, operate powerfully to determine scholastic practice. Still others, which are neither consciously held as theories nor supported by lasting tradition, are recognized merely as contemporary circumstances which affect the program either positively or negatively. Some of these influences are so directly related, at least to certain aspects of the program, that their relationship to it can be specified. Others are presumably much more diffuse, indirect or subtle in their effects.

Despite the difficulty of measuring them exactly, there are two good reasons for giving some consideration to these influences. The person who has or seeks to have an intelligent interest in the work of the secondary school must consider not merely the nature and merit of its program, but also the conditions and conceptions which have shaped it. And the person who attempts to contribute to the improvement of the school is more likely to do so wisely and effectively if he is aware of the underlying influences which may operate as aids or obstacles.

Institutional inertia. Some of the elements in the program at present are there without rational justification. Some subjects are being taught chiefly because of scholastic inertia. They are in the curriculum because they have been there. If they had not been there for a generation or two it would be pretty hard to find reasons for introducing them now. Such subjects are usually well panoplied with rationalizations with which to repel or beguile attackers who try to dislodge them. It need not be inferred that this inertia is something for which educators are entirely or exceptionally blameworthy. Some of the staunchest supporters of the status quo are to be found among patrons of schools and other laymen. Educators observe that although the public generally is ready to charge the school with new responsibility whenever occasion arises, it is also ready to complain of "fads and frills" when the school actually makes innovations, particularly if they seem to involve expenditure of money. Added expenditures are likely to be required because the program seems to develop chiefly by accretion. New educational offerings are much more commonly supplied as additions than as replacements of something discarded.

There is some extenuation for the school's inertia in the character of its work as an institution. It is ordinarily looked upon as an agency which does not and should not turn out finished products. The divi-

dends from a youngster's education are supposed to accrue over a long period in the future. Furthermore, the benefits which schools claim to produce are commonly rather intangible and indirect. Accordingly neither the school nor its patrons are likely to assess the product. It is much easier to concentrate attention on the maintenance of the process. As long as there is no clear and tangible evidence concerning the extent to which schools actually succeed in producing the results actually claimed for them, it is hardly to be expected that they would readily make substantial changes in their programs.

The influence of traditional academic specialization. Closely related to the traditionalism which besets the secondary school is the influence of academic specialization. Secondary-school teachers, having been trained in the colleges and universities, where curricular programs are organized in terms of the interests peculiar to specialists in limited aspects of academic scholarship, naturally foster similar emphases for secondary-school pupils. This influence is, of course, not limited to the biases in secondary-school teachers. We have seen that the Committee of Ten, which before the beginning of the century firmly established curricular patterns which have persisted until today, was so composed as to represent almost entirely the preferences peculiar to the sponsors of specific fields of academic specialization in the colleges.

Additional emphasis of the same sort operated through the admission requirements which the colleges so long imposed upon high-school graduates. Although the secondary schools were so bothered by these admission requirements that they succeeded in having them considerably relaxed, not much attention has been given to the fact that in preparing the teachers for the secondary schools the colleges probably have more influence upon the education of secondary-school pupils than they have had through their admission requirements. Whether or not the special interests of academicians provide a suitable basis for the education of college students, it is clear that most of the young laymen who attend secondary schools need something different. This would be willingly admitted by most college professors, if they were made to consider the matter.

The specialist in a particular subject finds it easy to assume that his own approach to his subject and his own accustomed methods of dealing with it are the best. For example, the specialist in mathematics who has been trained chiefly for scholarly competence, and who

is proficient in working with mathematics as a technical art, optimistically assumes that the kind of mathematical experiences which he has found useful and satisfying are equally suitable for others. In the same way the chemist trained specifically in the techniques of the laboratory researcher and well supplied with the detailed factual knowledge which is instrumental to rigorous craftsmanship in the chemical laboratory, attempts to give his pupils the same sort of training. Of course, if he has any sense of reality, he will perhaps somewhat grudgingly demand smaller amounts of training than are needed to produce skilled chemists, but the kind of training is that which is supposed to produce capable technicians. If persons who are not chemists and have no intention of becoming working chemists suggest to the chemist that it would be very useful to provide instruction suitable for the layman, instruction to develop understanding of the character of chemical science and appreciation of chemistry's significance for the layman, the specialist is likely to retort that this is not chemistry.

Even in fields of instruction in which there is no great amount of technical training to interfere with the presentation of facts significant for the layman, there is considerable tendency to labor over minute factual details which are absorbingly interesting to the specialists who sponsor instruction but which have no particular significance for others.

Teachers seem to be somewhat peculiar in their possession of this trait. Workers in other professions in which there is responsibility for serving the needs of laymen are relatively free from it. For example, physicians are not in the habit of giving their patients medical training. Newspaper men seem not to wish to make reporters of their readers. Playwrights and actors are very much interested in certain special technical and theoretical problems peculiar to the art of the theater, but they do not ordinarily seek to make actors or playwrights of those in their audiences — probably for the very good reason that they wish to retain their audiences. If the teacher's work were not hedged about with compulsory attendance laws, marks, requirements for graduation, and requirements for admission to college, and if he could not take advantage of the relative immaturity of his pupils, it is probable that he too would make a greater effort to serve the distinctive needs of the young layman.

The uncritical application of the preferences of the specialists frequently imposes technical training upon those who have no need or prospect of becoming technicians. It overemphasizes minute factual details which have little significance for most persons, and by using much time for these things it restricts the range of what is included in the curricular program. Such conditions tend to discredit the school's program, and it is not surprising that efforts should be made to ameliorate them.

Inadequacy of attempts at "correlation." One suggestion, which is perennially advanced in spite of the fact that frequent attempts to apply it have been rather futile, is that teachers should increase the significance of the curriculum by "correlation of subjects." Specifically, it is expected that teachers of history will "correlate" their instruction with that of teachers of English, mathematics, science, foreign languages, and the like. There is an element of soundness in the idea. To acquire meanings is to recognize relationships, and the pupil would benefit considerably if he could become aware of relationships among the several departmental segments of the curriculum.

The joker in this case is the fact that the curriculum is so lacking in consistency and harmony as to make it exceedingly difficult to find substantial relationships in it. A high-school sophomore, for example, is likely to divide his attention among such different matters as are suggested by the titles of his textbooks. In his study of plane geometry he will delve into the treatment of postulational logic produced by Euclid, the Greek mathematician, some centuries before the time of Christ. In addition, he may study *Silas Marner*, a description of domestic life in a rural English village as yet untouched by industrial civilization, or perhaps *The Idylls of the King*, Tennyson's musical narrative of the romantic affairs of a mythological ruler and his weak-minded friends; Julius Caesar's egoistic account of his military exploits among his barbarous contemporaries; and a textbook on biology. Whether or not the pupil discerns many relationships among these subjects, his teachers do not succeed very well in establishing correlation, even if they attempt to do so.

Advocacy of the attempt to correlate the inherently disjointed curriculum is probably more significant as a symptom of vague dissatisfaction with its incongruous and discrepant character than as a

palliative. Correlation of some sort is needed, but it is too much to expect that teachers can so administer their instruction as to give even a semblance of harmony to a fundamentally discordant curricular program.

Conflicting theories of the educative process. Much of the discordant character of the secondary-school program reflects fundamental conflicts and differences in theories concerning the general nature of the educative process. It is sometimes difficult to discern whether the theory avowed by an educator is a basic cause of his practice or a somewhat superficial rationalization. It should be frankly recognized that he may not understand why he acts as he does, and that he sometimes espouses a theory which, even though it contradicts his own actions, is currently approved as a sort of scholastic window-dressing. Sensing as well as he can the demands of his patrons, he may seek to calm their fears or win their favor by asserting that his practice is appropriate or necessary to the fulfillment of these demands.

Like a shifting weather vane, the chief function of which is to decorate the structure which holds it aloft, the claims made in behalf of the school are often more indicative of the directions of social currents than of the intrinsic functions or values of the school. When Americans have been acutely conscious of the need for more skilled, sober, and industrious workmen, the public high school has claimed to provide them; when industrial expansion requires increased purchasing power, the high school is supposed to raise standards of living; when "crime waves" threaten, the school assumes the rôle of Canute; when unemployment sorely troubles us, the high school becomes the means of fostering proper use of leisure.

Because the school proceeds without much deviation from its customary practice, the person who tries to understand it must discount somewhat its theoretical professions. But he cannot ignore some of its persisting theories. Most theoretical conceptions of education are concerned primarily with the individual. Among the individualistic conceptions of education, some take their cues from the characteristics of the immature child; others are focused on adulthood. Other theories, as we have seen, have reference chiefly to the social order. Social conceptions of education may rest upon the basic assumption that the main objective is the preservation of the

past and the stability of the future, or they may grow out of the notion that rapid social change is a major consideration.

In addition to these variants, there are attempts at educational theory in which the development of the individual and the characteristics of the social order are not very directly taken into account and in which the practical details of the educational process itself are elaborated and expounded.

As a general rule, however, personal development receives much attention from educational theorists, and it is here that some of the sharpest conflicts exist. The most obvious conflict is between those who exalt the child and conceive of education as opportunity for unrestricted growth, and those who look toward adulthood and seek to produce it through discipline.

Education as discipline. Devotees of discipline in education usually conceive of their task as a strenuous regimen of exercise. In one sense the disciplinary trend is a throwback to the morbid asceticism and otherworldliness of the middle ages. If it is assumed that human nature is originally depraved and that the world of the present is merely an unhappy and temporary vestibule to a more permanent spiritual abode, it is logical that adults who see these matters more clearly than their children do should urgently seek to stamp out all traces of childish devilishness and to implant in youth the traits recommended by theologians. It was, therefore, no accident that the schools of early New England were often closely supervised by the clergy, that their curricula had not much in common with the affairs of contemporary community life, and that their pupils labored in a harsh and dismal atmosphere.

Formal discipline. A cogent element in the general disciplinary philosophy of education is the special theory known as formal discipline. Even among those who have been little concerned with ideas about the natural depravity of mankind and rigorous piety as a preparation for an imminent eternity, advocacy of the theory of formal discipline has been common. It assumes, in brief, that a youth may be well fitted to discharge duties and responsibilities of life competently and satisfactorily if his inherent mental powers can be formed, sharpened, and polished through laborious exercise. The adherent of this belief does not ignore or belittle the necessity of preparing young people to cope ultimately with the concerns of every-

day life. He is willing to admit that boys and girls will eventually establish homes, rear children, engage in wage-earning occupations, influence the development of various social institutions, encounter the jeopardies of disease and war, and do a thousand and one other things which demand the best possible use of insight, appreciation, and ability in great variety and complexity. But he insists that there is no advantage to be gained from allowing these matters to intrude in the process of education. He asserts indeed that it is most advantageous to exclude them. The reason is simple. The child is already equipped with a mind. He was born with it, as with a *biceps femoris*. The mind is to be strengthened and made adept through exercise. As the muscles are developed through gymnastic exercises, so the mind is developed by the discipline which it is supposed to get when the pupil performs the exercises which the schoolmaster prescribes.

Accordingly the schoolmaster has a preference for subjects of instruction which have little apparent utility or value. That makes schooling more difficult for the pupil — gives him more mental exercise. If the pupil were to find something interesting or enjoyable in his studies he would be in danger of finding them easy to do and of losing the educational values which are supposed to come from a regimen of academic drudgery. There are many subjects which can be made sufficiently uninteresting and difficult to provide opportunities for sedulous effort, and scholastic disciplinarians have believed that, provided they involve enough mental exercise, one subject is about as good as another. Mr. Dooley neatly exposed the meager kernel of this hard-shelled theory when he remarked that "It makes no difference what you teach a boy, so long as he doesn't like it."

Not all educators who conceive of education as a disciplinary process would subscribe fully to the extreme position that education is primarily a regimen of difficult mental exercise in which the subjects studied are intrinsically unimportant. There are, to be sure, some who believe that a very difficult course of instruction is for that reason a good course and that a course which is easy is therefore unworthy of respect. But there are others who see no particular virtue in making school work difficult and believe that the factual content of courses of instruction is in itself unimportant except as it provides opportunities for the development of certain mental processes. One frequently hears it said, for example, that it is less desirable to put

a pupil in possession of facts than to develop in him the ability to find the facts which he needs on occasion; or that we should not teach facts — we should teach pupils methods of thinking.

Among those who hold that school instruction should result in the acquisition of formalized mental processes, certain highly formal or systematized subjects of instruction are much esteemed. Such formalized subjects as geometry, grammar and syntax in English and foreign languages, and the sciences in which it is customary to perform stereotyped laboratory exercises, have been praised and taught for many years in American secondary schools not so much for the intrinsic significance of their factual content as for the pupil's supposed training in deductive methods of thought, or orderly thinking, or scientific methods of problem solving. Despite variations in emphasis, the general effect of these disciplinary conceptions has been to depreciate the significance of the factual content of the curriculum and to perpetuate a regimen of academic exercises in which pupils often find drudgery, boredom, or failure.

Objections to education as discipline. Opposition to the disciplinary emphasis in education is generally not so much a matter of critical or objective refutation of its logic as it is a reflection of changes in the general temper of the times or in our philosophic assumptions about human life and human values. As long as adults generally subscribe to what has been called "the old penitentiary school of child psychology," with its belief in "infant damnation," "breaking the child's will," the intrinsic virtue of work and the sinfulness of pleasure, and the relative unimportance of the affairs of this world except as they furnish trials in preparation for a life in the world to come, they will not object very much to dismal discipline in school. If, on the contrary, men come to believe in the "rights of the child" and to respect personality, if they esteem human satisfactions and values, if their concern is with the realities of the world here and now, a disciplinary education will have less appeal for them. In considerable degree the general attitudes of Americans have shifted. The school gradually reflects these changes in the spirit of our culture, as it might be expected to do even if there were no conscious intent to change the school.

Educators have frequently pointed out, especially when they were wont to criticize school subjects of which they were not partisans,

that a subject which is made the occasion for a dreary round of continuing drudgery for the pupil is not likely to become a permanent avenue of intellectual interest. The alacrity with which many pupils discard their textbooks at the end of a course and from that time forth show not the slightest interest in its subject matter, except perhaps to express their pleasure in having escaped from it, supports the criticism. Critics of the disciplinarians have not merely decried the unfortunate negative effects of making school work difficult and dismal. They have insisted that it must be made positively interesting and satisfying to the pupil if he is to learn with maximum present efficiency and if he is to develop attitudes which will have lasting value and which will foster continued development of the interests and abilities which have had their inception in school. The educative importance of positive interest has been clearly stated by Dewey.¹

In behalf of interest it is claimed that it is the sole guarantee of attention, if we can secure interest in a given set of facts or ideas, we may be perfectly sure that the pupil will direct his energies toward mastering them; if we can secure interest in a certain moral train or line of conduct, we are equally safe in assuming that the child's activities are responding in that direction; if we have not secured interest we have no safeguard as to what will be done in any given case. As a matter of fact, the doctrine of discipline has not succeeded. It is absurd to suppose that a child gets more intellectual or mental discipline when he goes at a matter unwillingly than when he goes at it out of the fullness of his heart. The theory of effort simply says that unwilling attention (doing something disagreeable because it is disagreeable) should take precedence over spontaneous attention.

Practically the appeal to sheer effort amounts to nothing. When a child feels that his work is a task, it is only under compulsion that he gives himself to it. . . .

While the theory of effort is always holding up to us a strong, vigorous character as the outcome of its method of education, practically we do not get such a character. We get either the narrow, bigoted man who is obstinate and irresponsible save in the line of his own preconceived aims and beliefs; or else a character dull, mechanical, unalert, because the vital juice of spontaneous interest has been squeezed out.

Its pedantry and remoteness from life is another basis for objection to the disciplinary conception. The disciplinarian has often been accused of being content to pay no attention to the world of affairs and

¹ John Dewey: *Interest and Effort in Education* Boston: Houghton Mifflin Co., 1913. 102 p.

the urgent problems with which his pupils will be and are now confronted. He is often observed even to be scornful of any sort of education or training which shows symptoms of being useful in a practical way. Many educators have become so impatient and displeased with the way in which the sponsors of traditionally disciplinary subjects of instruction have tried to maintain them in preference to subjects directly concerned with everyday life that many would now be glad to dispense with the traditional subjects entirely. Indeed, the objection to the disciplinary emphasis in education is frequently not so much in opposition to the aim of developing certain disciplines in pupils as to the kinds of school subjects which the disciplinarians wish to use for the purpose.

A further objection to the disciplinary school is the accusation that it is aristocratic rather than democratic. Certainly such a school is highly selective. Its studies are such as to discourage the long attendance of young people whose capacities and backgrounds hinder their successful adjustment to the formalism of its procedure and the cultural vacuity of its curriculum. Incidentally, it is quite possible that its asserted success in developing mental power and in producing men who are highly competent and estimable citizens is actually little more than the effect of its selection of persons who are already generously endowed with native intelligence, stability and fortitude and the favorable influences of superior family background. Such persons might very well become competent and admirable adults irrespective of the kind of schooling provided for them. However that may be, a disciplinary secondary school inevitably favors those persons who are already favored. It gives to those who have, and withholds from those who have not. Even if universal attendance is compulsory its effect is to accentuate social differentiation by imposing a regimen in which only the more fortunate can be successful, whereas the less favored pupils are foredoomed to frequent failure. These successes and failures may be somewhat fictitious, but their effects upon pupils are real. Although there may be important civic values coming from a school which serves as a sieve to select talented individuals for positions of leadership, the values of selection are not necessarily the values of educational development. And it should be noted also that the disciplinary secondary school, regardless of its educational merits, may be selective without making the proper sort of selection. If its

curriculum is made up of antiquated subjects which tacitly disparage concern for contemporary civilization, it may select persons whose tendencies are similarly reactionary. If it is esoteric and trivial, it may select socially incompetent pedants.

All of these objections to disciplinary conceptions have been influential, but much more incisive have been the findings of investigations of the extent to which the claims of the disciplinarian are actually realized effectively in scholastic practice. Scientific modes of appraisal have been used to discover how far and in what ways experience or learning in a given situation affects experience or learning in other situations.

The problem of "transfer." Perhaps somewhat in reaction against prevailing assumptions that abilities developed through disciplinary training in traditional subjects would be transferred and applied in other school subjects or in other life situations, psychologists and teachers made numerous efforts after the turn of the century to measure this transfer empirically. In 1890 the widely popular psychologist, William James, published the results of a practical experiment which he had made to see if practice in memorizing printed material developed transferable ability to memorize.² During the next twenty years numerous experimental investigations supplied enough evidence to convince most educators that the amount of transfer is very small and that the particular school subjects which are claimed to be superior in producing it seem to have no such superiority. Many of these earlier studies were not very carefully made and modern devotees of scientific methods of experimentation would not regard their findings as having been fully established. Although many of them indicated that there is transfer of training, educators very generally came to believe that disciplinary theories of education had been completely discredited. More recently, however, Thorndike, Judd, and many others have produced evidence and interpretations of it which tend to show that transfer should not be taken for granted as occurring automatically, that it may be produced in considerable measure, and that it is possible to increase the amount of transfer by providing certain necessary or favorable conditions.

Thorndike has presented evidence which indicates that the various

² William James: *Principles of Psychology*, vol. I. New York: Henry Holt & Co., 1890, pp. 666 ff.

secondary-school subjects, including both the more traditional academic subjects and the newer non-academic subjects, do not differ greatly in their effectiveness in producing transfer.³ He points out that in reality certain subjects which appear to be extraordinarily effective in developing superior abilities are ordinarily the subjects which are taken by pupils who are extraordinarily able, and that if these able people were to take other subjects, these subjects would also appear to be extraordinarily effective.

In explaining the conditions which make for transfer Thorndike emphasizes identical elements. He asserts that in order to result in transfer to other areas of experience a given experience must have elements in common with these other areas. The common elements may be identities of substance or meaning, or identities in procedure, or identities in aim. Unless there are these identities, transfer is presumed to be impossible. As a corollary, Thorndike advocates specificity in training which is so organized as to train people to do just what they require.

Judd vigorously differs with this point of view. He emphasizes the fact that transfer is a function of the higher intellectual processes and that generalization is the basis of transfer.⁴ He insists that the essence of transfer is the individual's recognition of the general significance of his knowledge or of the general applicability of a skill or method of procedure. Complete identity of elements in different situations is no guarantee that there will be transfer, and two situations need not have very much in common, provided the individual recognizes them as related.

Other investigators have given slightly different emphases. Some assert that transfer is promoted by the development of general attitudes or "generalized controls of conduct." During recent years particularly there has been authoritative emphasis on the importance of developing insight and aggressively thoughtful awareness of meanings and relationships.

For example, after evaluating theoretical and experimental evidence concerning transfer, Orata says:

³ E. L. Thorndike: "Mental Discipline in High School Studies," *Journal of Educational Psychology*, 15:11-22, 83-98 (January, February, 1924).

⁴ See Charles Hubbard Judd: *Education as the Cultivation of the Higher Mental Processes* New York: The Macmillan Co., 1936 206 p., or *Psychology of High-School Subjects* Boston: Gunn & Co., 1915, chap. XVII

The amount of transfer depends upon the extent to which meanings are identified and applied. This range of extension is much widened by the ability of the individual to detach meanings from their concomitants. The process by which they become detached is also a process by which they become enriched in content. The meaning thus developed is then provided with a name; and in this way meanings become concepts. Transfer is then very greatly facilitated by the formation of concepts.

The educational significance of this notion of transfer is clear and unmistakable. If transfer is facilitated by concept formation, then education, in order to facilitate transfer, must of necessity be concept building. It is a process of equipping the individual with concepts which are rich in meaning so that he can apply them in meeting life situations. When so conceived education becomes world building, inasmuch as our world is what we make it or what it means to us. Our knowledge of any subject when generalized into concepts and enriched in content and application becomes a tool for adjustment to an unlimited number of situations. Knowledge thus becomes a tool for both practical purposes and for broad social insight, for to see the application of knowledge to various lines of activities is synonymous, so far forth, with appreciation of the social significance of these activities.⁵

Certain implications are obvious. In the first place, training is less likely to transfer than is education. If by training we mean emphasis upon repetitive, routinized, mechanical practice or drill of the sort which results merely in even a high degree of skill or proficiency, and if by education we mean the development of thoughtful and interested awareness of the significance or meaning of things and activities, training is a relatively unpromising means of producing transfer. From a practical standpoint, transfer is adaptability, and we cannot expect adaptability to result from training in fixed and thoughtless modes of conduct. On the other hand it is unreasonable to expect that the development of insights and concepts will increase the individual's adaptability or general competence to meet situations to which they are not applicable. It is unlikely, for example, that even very full interest and insight concerning Shakespeare's sonnets will make one more competent to manage a fruit farm, although they may help him to appreciate the bucolic lyrics of some contemporary poet. Here is the nub of the educator's problem with reference to transfer.

⁵ Pedro Tamesis Orata: *The Theory of Identical Elements: Being a Critique of Thorndike's Theory of Identical Elements and Re-Interpretation of the Problem of Transfer of Training*. Ohio State University Studies, Graduate School Series, Contributions in Principles of Education, no. 3. Columbus: The Ohio State University Press, 1928, p. 177.

He must, if he can, provide for his pupils experiences which are sufficiently withdrawn from the immediacies of personal action to develop perspective and judgment, but he must not withdraw so far as to deter the learner from seeing and making continual application of his insights to the realm of real affairs. The problem is to find a middle ground between the extreme of purblind activity on the one hand, and vacuous pedantry on the other. To keep a boy's nose to the grindstone may make him a proficient spinner of grindstones, and little else. To instruct him abstractly with reference to the physical and chemical properties of abrasives may leave him completely ignorant of grindstones and quite undisposed to lend a hand in turning them when necessary.

Realism and transfer in relation to individual levels of intelligence. A further qualification which must be taken into account in interpreting the possibilities of transfer has reference to the mental potency of the individual. Some persons have more capacity than others to make general and varied use of their knowledge. The highly intelligent person has superior capacity for dealing with abstract, general concepts and for making discriminating use of them in relatively new and varied situations. The relatively unintelligent person is not so well equipped to cope with abstract knowledge and, even though he may seem to acquire nominal possession of it, his knowledge often serves chiefly as a kind of useless baggage. It becomes apparent that there can be no definite assessment of the educational possibilities of transfer which does not take into account their relationship to individual differences in native intelligence. As a corollary, the extent to which educational practice should or should not be realistic, specific, and concretely practical cannot be determined in universal or absolute terms which are applicable equally to all sorts of persons. For the relatively unintelligent person there must be corresponding emphasis upon direct, concrete reference to the specific actualities of personal conduct. For the highly intelligent person such specific training may be unnecessarily wasteful, and broader insights may serve efficiently to illuminate and influence the particulars of personal action.

Necessity for attention to the development of attitudes. Consideration of the problem of transfer in general and of its significance in relation to levels of intelligence in particular, strongly suggests the importance of attitudes. The chief reason why we must consider

and depend on transfer is the impossibility of our giving young people a complete understanding of the world or developing in them a full repertoire of skills and abilities for use in the manifold and more or less unpredictable contingencies of living. This is particularly true of the youngster of inferior talent, but it applies to the most capable as well. Even if we had the richest possible curriculum and the most able pupils, high-school graduates would leave the school equipped only with a very small part of the knowledge and the abilities they will need. No matter how able, thoughtful, and well informed they may be, they will meet many situations in which it will be quite impossible for them to act competently merely by the application of intellectual power. They must depend very considerably upon certain well-established attitudes, and they do.

Even casual observation of the characteristic behavior of individuals and large social groups will provide abundant and convincing evidence of the powerful and fundamental character of their emotions and attitudes. So large a place do these primitive forces play in human affairs that the philosopher who is dismayed at the failure of men to behave as if they had brains is sometimes led to observe that civilization is a very thin and fragile veneer. Even if the school devotes itself zealously to the development of the intellect, its neglect of the development of attitudes will mean that it is not likely to have much influence upon the lives of individuals or upon society at large.

It is not now customary for American secondary schools to give definitely planned attention to the development of attitudes, and it is not hard to see certain reasons for the neglect. Perhaps the most important deterrent is the fact that the American people are lacking in any cohesive common culture. The melting pot has not melted. If we are more than a collection of cultures, we are surely little more than a mixture of different cultural elements. As long as any one racial or national element among us is relatively new and relatively impotent socially and economically the schools can and frequently do undertake effectively to change the attitudes of its young people. But when any such group has established itself economically and politically the schools are much more reluctant. Our religious sectarianism also influences the schools to ignore the possibility of attempting to influence the fundamental attitudes of young people.

This is neatly illustrated in the history of the American secondary school. During the colonial period in New England when religious interests were unified and dominant the public school sought to maintain certain commonly approved attitudes. But it was partly for this reason that the schools themselves were discarded when a growing population lost its religious unity. By the time the public high school had become well established it was generally understood that it should be strictly non-partisan in religion. Public secondary schools in which there is any discernible religious bias usually reflect the bias which has become politically dominant in their own localities.

The tradition of free individualism in America and the popular opposition to social stratification also interfere with any attempt on the part of the schools to change the fundamental attitudes of young people. In contrast with our own, the "public" schools of England have long been intended chiefly to guide the attitudes of boys so as to make English gentlemen of them. This is not too hard to do, for everybody knows what an English gentleman is. The boys' fathers are all English gentlemen, and the fathers of other boys send their children to other schools. An American high school which undertakes to try to do the same thing will discover that it cannot be done. We are so unstandardized in our ideals as to make it very difficult to determine what attitudes we should promote.

"Character education." These difficulties are well illustrated in recent movements for "character education." Some persons, particularly those closely identified with religious sectarianism, advocate a type of character training which is a special enterprise, involving direct moral or ethical instruction or training. Others, more or less representative of secular ethical idealism, would like to see the schools direct and utilize all aspects of the child's experience in school to produce approved ideals and traits of character. This conflict is not merely a disagreement concerning the relative effectiveness of the two different means of approach and procedure; it reflects also a fundamental conflict in aims. This conflict is seldom discussed freely and openly, but it operates powerfully to hinder concerted constructive effort in the planned development of character traits and attitudes in youth.

The results of character education. In most secondary schools where there is little systematic attention given to the development of

certain character traits in particular or to the development of attitudes in general, there is naturally little attempt to assess the attitudes produced by the school, although the school inevitably influences the attitudes of its pupils. In exceptional instances where there has been effort to influence character development through the use of specific procedure, the results have frequently been somewhat negative.⁶ However, rather than acting as deterrents, these results seem apparently to stimulate greater interest in the development of attitudes.

Briggs, for example, citing the fact that the schools neglect these matters and recognizing the irrational emotionalism in the everyday affairs of men, discusses the program of the secondary school implying that it should be primarily, if not almost solely concerned with the development of emotionalized attitudes and mores.⁷ Possibly he is so certain that the intellectual traditions of the secondary school, such as they are, will maintain themselves without further support that he thinks it safe to emphasize the importance of emotionalized attitudes and interests almost exclusively. He frankly demonstrates the inadequacy with which we sometimes attempt to formulate desirable attitudes by listing such terms as honesty, initiative, adaptability, responsibility, self-control, service, happiness, thoroughness, appreciation of beauty, sympathy, foresight, reverence, thrift, generosity, and the like.

He makes a most helpful contribution in emphasizing the importance of the emotional elements in daily living, in criticizing the instruction of the secondary school for its academic and verbalistic aridity, and in suggesting possibilities of making the experiences of youngsters in school the well-springs of richly satisfying and permanent interests.

Individualistic theories of the educative process. In marked contrast with disciplinary theories of education there sprang up "child-centered" education which intends that the school should set out intentionally to develop such attitudes as may be desirable and to redirect others which seem unworthy. The countertrend toward individualism was not merely a reaction against the tyrannies of the scholastic disciplinarian but inculcated the tendency to exalt the

⁶ See, for example, Vernon Jones. *Character and Citizenship Training in the Public School*. Chicago: University of Chicago Press, 1936. 404 p. See also Hugh Hartshorne and Mark A. May. *Studies in Deceit*. New York: The Macmillan Co., 1928. Book I, 414 p. Book II, 306 p.

⁷ Thomas H. Briggs. *Secondary Education*. New York: The Macmillan Co., 1933. 577 p.

child, to assume that children are not originally depraved but inherently good, to disparage asceticism and otherworldliness, and to make the school take its directions from the characteristics of the child.

Inspiration for individualism in education were the influence of French liberalism, with its insistence on the rights of man as opposed to external sanctions; the impact of the American revolution, which dramatized and popularized liberal ideals in America; the exceptional need and opportunity for the exercise of individual initiative in a new nation and in a country in which mercantile, industrial, and territorial expansion proceeded rapidly and simultaneously; the personal autonomy which arose naturally from the isolations of frontier living; the disintegration of authoritarianism and the growth of science; the unsettling effects of a world war; the apparent unpredictability of the future in a changing world.

Although they are seldom mentioned now by educators, the teachings of Rousseau, Emerson, and Walt Whitman might well have been the sources from which the individualists have drawn their guiding principles. From the individualist's point of view the pupil should be free from external direction or restraint. The school environment should afford protection from both the evil influences of the world and from the imposition of adult standards of life and conduct. The purposes of the school should be the child's own purposes. His activities should be those arising from his own inner urges and interests. The worth of what he does should be measured by his own satisfaction in doing it and by its stimulation of further satisfying activity. The teacher's task is, of course, important, but subordinate. He must maintain an environment in which the pupil is sheltered from unwanted external influences and in which satisfying ways of self-expression are accessible to the pupil. But the teacher must not rule over the school.

Advocates of these views seldom state them as baldly as they are here presented. There is usually some qualification to the effect that the activities undertaken by children should be "worth-while" or "wholesome." But there is seldom any explicit statement indicating what should be looked upon as wholesome or worth-while. And the characteristic tenor of "child-centered" conceptions is to emphasize untrammelled freedom and self-direction, and, as a corollary, the elim-

ination of uniform standards of evaluation or other external sanctions.

Some individualists go so far as to reject conventional curricular subject matter, though they give different reasons for the rejection. Some say that conventional fields of knowledge are not psychological and are therefore unsuitable for children. Others boldly assert that the world is changing so rapidly that what was true or significant in the past, or even at present, is an unsuitable educational diet for youngsters who will probably live in a world very different from that which we now know. They hold that the best preparation for the youngster's unpredictable activities in the changing world of the future is variety of experience growing out of his own purposes.

These views have not yet had much application in the program of the secondary school, although their influence in the elementary school has been very considerable. Whether or not they will influence the secondary school may be determined in part by the influence of certain criticisms and opposition to them.

Many educators agree with the individualist in his disparagement of the more traditional belief in the intrinsic unworthiness of human motives and in the necessity of curbing and thwarting the natural tendencies. But they cannot agree with the vehement assertion of an opposite belief in the child's natural tendency toward righteousness. The weight of evidence from psychology, anthropology, and sociology supports the view that human beings are highly adaptable and well supplied with potentialities of becoming very benign or thoroughly nasty. Whether they will eventually turn out to be one or the other depends considerably upon the quality of their environments. It is therefore axiomatic that the school must not be merely a pleasant place in which pupils will be encouraged or permitted to establish through practice whatever predispositions they bring to it. On the contrary the school should vigilantly and positively seek to prevent the development of undesirable personal tendencies and to eradicate those which have already developed. Similarly it should not leave the development of worthy personal tendencies to the vagaries of undirected growth.

Although it is seldom stated, another criticism of the individualist's theory is directed at the individualist's apparent assumption that the beginnings and intermediate stages of education should be identical with the ends of education. The critic of this view may willingly agree

that in consequence of his education an individual should have become free, self-directing, and good in the best and fullest degree, but he doubts whether the best way of insuring the ultimate attainment of these ends is to treat the learner from the beginning as if he had already attained them. The critic will willingly agree also that there is sound justification for providing from the beginning intelligently planned and suitably measured opportunities and stimulation of the increasing exercise of freedom and self-direction. But he insists that the child's right to develop powers of self-direction does not abrogate his right to profit from the guidance and direction of adults whose maturity of insight and whose understanding of the child's needs ought certainly to be much more trustworthy than the child's own. In brief, the objector to child-centered theory holds that it overestimates the child's personal resources for profitable self-direction and underestimates the educator's obligation and competence to help him.

On other grounds there are equally strong objections to extreme individualism. It is denounced for its neglect of the concerns of the great society and its tacit or willful disparagement of the knowledge and abilities which are both the fruits and the foundations of civilized living. The mere existence of a school implies that there are advantages in withdrawing young people from the direct and immediate contacts which they would otherwise have in the affairs of everyday life. Critics point out to the individualist that the purpose of this withdrawal is not merely to insulate young people from their common social environment, but rather to increase their comprehension of it and their ability to participate in it effectively. If the school is to be adapted to the preferences of youngsters, confirming them rather than redirecting them in the light of social necessities which they should be made to understand and be able to deal with, the school falls short of its best service to young people and to society.

The need for critical and rational synthesis of divergent views. The disparities and conflicts among the various fundamental positions of educators suggest that they cannot all be right. The person who finds himself completely in sympathy with some of them will probably believe that some of the others are decidedly wrong. However, the extent to which each of these slants or biases is supported by the beliefs of large numbers of reasonably intelligent and sincere people suggests that perhaps none should be lightly dismissed as having

little validity. It has been suggested previously that many of these biases have come about as reactions against prior extremes. Considered separately they may appear to be partial and unworthy. Viewed with perspective which includes contrary extremes they become more reasonable.

The disciplinary tradition, unpopular though it is in many quarters, is not without some merit. It lays stress on definite standards and it emphasizes the fact that, whether he likes them or not, and whether he is able to meet them or not, the individual must not expect that he will get what he wants or go very far without attempting to achieve what is demanded of him. For those relatively few individuals who are able to survive its rigors, the general disciplinary influence undoubtedly develops stamina. It sometimes shows itself as a perverse stubbornness, but it frequently produces men who are so accustomed to difficulty as not to fear it.

The advocacy of making education almost entirely a process for the development of attitudes or emotionalized biases may, when considered in isolation, seem very questionable, particularly to those who observe that the stimulation of highly emotionalized attitudes and the disparagement of free intelligence is a favorite device of dictators. However, as a criticism of the academic formalism of the secondary school's program, it has much validity and significance.

In much the same way extreme emphasis on individualism appears in itself to be somewhat irrational and unwarranted. Viewed in the light of the traditions against which it is a reaction, it has more merit.

Critically assessing these theories in the light of their relation to its historic purposes as an institution, the secondary school will do well to apply them as correctives of its shortcomings. Being concerned primarily with the mental development of young people, it must rigorously select and provide for its pupils those experiences which will most economically equip them with the insights which have greatest utility in illuminating the world and their living in it. Because of the tendency of schools to become too narrowly devoted to the formal and symbolic aspects of obsolescent and academic subject matter there must be conscientious and unremitting effort to make these essential insights the centers of richly satisfying and personal interests in boys and girls. Being aware also of the somewhat natural tendency of adults to misconceive or ignore the immaturity of chil-

dren and of their right to the fullest possible development of their talents, the school must provide for them appropriate opportunities for the utilization of their diverse potentialities for effective action.

In addition to the disciplinary tradition, the advocated emphasis on development of emotionalized attitudes, and movement for character training, and the reaction toward extreme individualism, there are other movements and tendencies which deserve consideration. Some of them only indirectly influence the educational program of the secondary school, either because they have not thus far been stated in terms of curricular changes or because educators have not seen fit to permit them to have much effect. Others are very directly operative in some secondary schools at present. Some of them would tend to produce a very complete re-orientation of the entire educational program of the school. Others represent little more than minor or piecemeal adjustments.

The attempt to use the school as the agency for direct social reform. Although its advocates are a small minority among educators, they have managed to attract marked attention to the proposal that the schools should undertake to serve jointly as agencies for the promotion of specific reforms in the social order. Such proposals may perhaps be more sympathetically considered if it is recognized that they tend to appear at times when the nation is sorely beset with economic depression and when social tensions are so strong as to demand difficult and fundamental readjustments. Certain reformers, impatient with the tendency of teachers generally to follow rather than to lead and stressing the need for certain changes, question the sincerity of teachers who are supposedly responsible for helping young people to live the good life but who take no active part in rearranging conditions which make the good life possible. In short they insist that teachers shall be at least propagandists for changes which are not approved by society at large.⁸ Many critics of such views cite their impracticality. They reiterate the obvious fact that teachers who use their positions for purposes of political partisanship may expect to be discharged from those positions. Others point out that teachers have not the superior wisdom and foresight to determine what sort of reforms they should promote, even if they had the power to promote them. Still

⁸ See, for example, George S. Counts: *Dare the School Build a New Social Order?* New York: The John Day Co., 1932. 56 p.

others assert that this partisanship, or any attempted partisanship for that matter, means the abandonment of the school's essential service in a democratic society — the analysis and clarification of conditions which need to be understood if the members of society are best to determine what changes they wish to promote.

Although there are probably few teachers who will have been persuaded that they should become active propagandists for social reform, the recommendation that they should do so serves at least one very useful purpose. It arouses interest in the school's function, both among laymen and among teachers. For every person who issues a call to teachers to become advance agents for the better world in the making, there will be scores stirred to supply some additional wisdom.

Education as a conservative and stabilizing influence. Far from decrying the laggard character of the school's program, many educators hold that the school's chief mandate in the midst of social change is to preserve certain essentials to social stability and orderly progress. They emphasize the basic continuities of civilization and social culture. Even though the social environment may change rapidly, the knowledge and techniques which men have tested and accumulated through centuries of experience in the development of civilized modes of living are not now outmoded during the period of a child's schooling. The conservative believes that social progress will be jeopardized if we withhold from a generation of young people fruitful opportunities for understanding more of their cultural environment than they are likely to discern through the casual promptings of their immediate and personal experience.

Judd, for example, shows that acquaintance with and some degree of mastery of the vernacular, mathematics, the natural and social sciences are necessary possessions of the individual who is to cope adequately with his cultural environment.⁹ The only way in which the essentials of the cultural inheritance may be vitally maintained is through their persistent use by individuals. They cannot be kept in a state of suspended animation, neglected by men of today, and stored until there may be occasion to use them.

Detractors of this emphasis upon preservation of the cultural inheritance stress the possibility that it may result in sterile fixity and

⁹ Charles Hubbard Judd: *Psychology of Secondary Education* Boston Ginn & Co., 1927. 545 p.

stagnation. They find it easy to demonstrate that much of the hum-drum instruction in so-called traditional school subjects falls far short of the conservative's hopes. For example, they may doubt whether pupils who tediously memorize their daily stint of textbook material in a geometry class are becoming aware of the significance of mathematics in our traditional culture and disposed to preserve it through vital use. However, it would doubtless be admitted, even by those who disparage conservative influences, that this sort of teaching, although it has served to discredit the traditional school subjects, is hardly a fair illustration of the values which the conservative would like to see produced in preserving the cultural heritage

Although the conservative and the reformer may seem to be far apart, because they tend to emphasize their differences rather than their agreements, their conflict is not so complete as it may appear. Their differences in emphases are real, to be sure, and one would give more emphasis to the past, while the other would give greater weight to the trends into the future. However, both would usually agree that the school's chief concern should be to equip pupils with the insights, the appreciations, and abilities which help them to deal intelligently and competently with the world of today.

Theories concerning the school's relation to other social agencies and institutions. It has previously been pointed out in the discussion of the implications of democracy and the aims of the secondary school that the school must be discriminating in the types of services which it will provide for young people. Particularly when it undertakes to include in its program services supplementary to or different from its major task of developing essential insights and appreciations, it should consider its own possibilities in relation to those of other social agencies serving young people. In this connection the secondary school undoubtedly has what is frequently called a residual function. Apologists for the school, particularly, emphasize its supposed usefulness in taking up and carrying on responsibilities which have formerly been discharged by other social institutions but which the latter have gradually discarded. It is commonly held, for example, that the school becomes socially useful when it provides for young people certain kinds of training which used to be but are no longer common elements in home life. Again, it is sometimes held that, since industrial evolution has resulted in the gradual diminution of opportunities

for vocational apprenticeship, the secondary school should undertake to provide them. Persons who are disturbed by the apparent decline in the influence of the church upon young people sometimes assert that the school is therefore responsible for maintaining for young people the kinds of influences which the church used to provide.

Particularly among those whose predispositions are of conservative caste, the general residual principle here illustrated has much appeal. But the idea also has its detractors, some of whom derogate it by calling it the ash-can theory of education. This is another aspect of the disparity between conservatives and progressives. To those who cherish the past, the school is chiefly useful as a preservative. To those who see that social evolution makes inevitable the sloughing off of demonstrably useless customs and who wish that it were possible to accelerate the process, it is abhorrent that the school should be encouraged to busy itself with efforts to revitalize society's vestigial remains.

Uncritical acceptance of the function of assuming services discarded by other agencies undoubtedly tends to make the school a wasteful and dreary place. It is wasteful in the sense that it uses its own resources and the time and energy of its pupils in obsolete undertakings. After all, an activity which has finally been discarded by some other institution is by that very token likely now to be useless or unprofitable. The school becomes dreary because the activities which it undertakes residually will have come to the school at least partly for the reason that they no longer arouse popular enthusiasm. Regardless of their usefulness, they would probably have been maintained by the institutions which traditionally sponsored them if they had continued to secure popular approval and support.

The residual principle requires very critical appraisal and reformulation. Not only must the ancient good be preserved, if it is still good, but new occasions teach new duties. In seeking ways in which it may best serve boys and girls, the school must consider the desirability or undesirability of accepting old tasks from other agencies as well as the possibility of developing new services not heretofore supplied by any agency.

Influence of minorities and pressure groups outside the school. The foregoing considerations are by no means merely topics of academic discussion. Even if educators are not disposed to pay attention

to the adoption of new services, they cannot ignore the fact that special interests outside the school wish to use the school for the furtherance of their own selfish ends or for purposes which seem to them desirable for the general welfare. Some groups persuade legislatures to enact mandatory laws governing school practices. Others exert organized political pressure on local boards of education, school officers, or teachers. In other instances special interests subsidize or otherwise encourage the production of textbooks and other instructional materials to be supplied for the use of teachers and pupils. Before they can be sold in certain localities school textbooks frequently have to be revised to appease special interests which take a paternal interest in the schools. Certain powerful organizations directly promote and manage specific enterprises to be carried on within the school.

These diverse avenues of influence are used for a multitude of purposes. Organizations representing the special interests of the vocationally employed frequently encourage and promote legislation extending the length of compulsory school attendance. These efforts are often opposed by organizations of employers who wish to have an ample supply of young people seeking employment or by large taxpayers who wish to reduce their taxes. Aggressive minorities who oppose the use of intoxicants find various ways to compel the schools to co-operate with them and specify the ways in which the schools shall do it. Organized patriots promote propaganda for their patriotism; bankers' organizations stimulate instruction in thrift and the operation of school savings banks; insurance underwriters promote "safety education"; agencies sympathetic to the interests of the manufacturers of musical instruments, printing presses, and office machines use various influences to encourage the offering of courses which will necessitate the purchase of their equipment.¹⁰ In view of the efforts of groups outside the schools and of the schools' own recognition of some of the lacks in their programs, it is not surprising that educators themselves should undertake special projects for the planned reorganization of their educational programs for young people.

All of these considerations have reference to influences upon the school's program or to the intangible elements which make for its

¹⁰ For a description of the purposes and methods used by organized minorities in their efforts to influence school programs, see Bessie Louise Pierce *Citizens' Organizations and Civic Training of Youth* Report of the Commission on the Social Studies, American Historical Association, part III New York: Charles Scribner's Sons, 1933 428 p.

essential character. Although they are highly important and fundamental in their effects, they are important and effective only as they are embodied practically in the curricular program. It is, therefore, appropriate to go on to consider certain more concrete and direct influences in the development of the secondary-school program, and the following chapter will deal with more direct and systematic efforts to reorganize the educational program and with certain problems suggested by them.

Before continuing further, however, it may be well to emphasize some of the major problems which the secondary school must solve in connection with these basic theories and issues.

1. *How can the secondary school eliminate much of the inconsistency and arbitrary diversity which are characteristic of different fields of instruction and training and which impose handicaps upon pupils who are compelled to adjust themselves to the differences in various compartments of a disjointed and incoherent curriculum?* Much of this difficulty has arisen from the uncritical imposition and continuance of the traditional interests of the scholarly specialist and corresponding neglect of the distinctive needs of the young layman. It is fostered also by the failure of the secondary school as an institution to establish major objectives which would be so definite, so genuinely educational, and so compelling in their clearly discerned validity as to give direction to the teacher's work, and so acceptable as to stimulate consistent effort to attain a common objective. Even though the school cannot wait to determine objectives of this sort, it may accomplish a good deal by seeing to it that departments work together to eliminate the inconsistencies and the disorderliness of their several enterprises.
2. *How can the secondary school provide a curricular offering which is less partial and more adequately representative of the fields of fact which are the important concern of the well-informed young citizen?* One of the important difficulties to be surmounted is the opposition of vested interests who can easily see that the development of a broader program necessitates some reduction of the emphasis which their particular interests enjoy. Another difficulty arises from the simple fact that secondary schools do not ordinarily make any serious effort to assess the scope of the curriculum in its entirety or to make such adjustments and additions as any such assessment would clearly suggest. A further difficulty arises from the fact that educators hold a variety of theories of the educative process, and do not ordinarily, at least in connection with their work in school, attempt to resolve their conflicting theories.
3. *How can the secondary school resolve and clarify its conflicting tendencies to emphasize disciplinary training on the one hand and individualism on the other, or to aim at social reconstruction in some instances and to be*

content with mere laggard acquiescence to outside pressures in other instances? It is hardly to be expected that an institution with any vitality will be free from such conflicts. They are the essential stimulants to its development. However, its response to them should not be one of blind opposition or unwitting reaction. If the school is even to exemplify its own preachments to pupils it should be aware of its problems, analyze them judiciously, and attempt to arrive at constructive syntheses in which the valuable elements of conflicting conceptions are appropriately organized as a foundation for concerted effort.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Examine the instructional practices in certain secondary-school subjects and identify the educational theories which seem to be implied. Note particularly the extent to which these implied theories seem to be conflicting.
2. To what extent do secondary-school teachers who nominally reject disciplinary conceptions of education actually employ practices which are definitely disciplinary in character?
3. Prepare an annotated bibliography or a fully documented summary of recently published materials concerning "transfer."
4. Assume that it is administratively feasible to organize a secondary school which will fully exemplify the ideals of the individualists in education. Describe concretely the chief characteristics of such a school.
5. Examine several reports of recent curricular research. Evaluate the procedures used and the results produced.
6. Study carefully Dewey's *Interest and Effort in Education*, noting the extent to which he takes into account the significance of the relative immaturity or maturity of the pupil.
7. Assuming the appropriateness of disciplinary training of some sort, in what specific ways should disciplines appropriate for exceptionally intelligent pupils differ from disciplines for pupils of inferior intelligence?
8. Canvass the practices of a secondary school in order to identify those features which seem to exemplify individualistic principles.
9. Should boys who will eventually become physicians have a more, or less, child-centered type of secondary education than boys who will become writers of advertisements? Why?
10. In which of the following fields of activity do schools commonly emphasize direct values more than indirect values: hygiene, recreation, or vocation? Substantiate your selection.
11. Analyze various theories of the learning process and show how they are related to proposals for the construction of curricula.
12. Assuming that traditional academic disciplines are in various respects

unsuitable for many boys and girls of ordinary capacity and promise, what sorts of disciplinary training would be suitable? How is your answer related to the fact that democracy has its disciplines?

13. Assuming that the disciplinary conception of education is deservedly unpopular but that it must have some elements of merit worth salvaging, make a careful analysis of the advantages which are claimed for it by its advocates, and see if you can develop feasible plans whereby a modern secondary school can help its pupils to reap these advantages.
14. Recognizing the fact that one's general theory or philosophy of the educative process should have important and consistent bearing upon his conceptions of effective and desirable practice, try to formulate definitely the general theoretical positions in which you have definite and positive belief. Use these as criteria for a careful and detailed examination of your conceptions of practice in the secondary school. This will obviously be no easy or quickly performed task, but it is the most fruitful use which can be made of a basic philosophy of education.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF UNDERLYING THEORIES AND ISSUES

It has been possible in the preceding chapter only briefly to suggest some of the critical problems, theories, and issues which in one way or another influence the present practices of the secondary school, and which must be considered in any intelligent or effective effort to improve these practices. It is, therefore, at least highly desirable that the reader read as extensively as his time and interests permit books written by men and women who have devoted themselves to a full and thoughtful consideration of what we sometimes call the basic theories or the philosophy of education. Because of the fact that the philosopher very appropriately organizes his thinking in his own way, and because he must of necessity consider the whole of things in their diverse relationships, his writings are impossible to classify into neat and separate compartments. It would be unwise to attempt to try to classify his book categorically. Indeed not all of the persons whose writings are suggested in the following list would prefer to have themselves identified as philosophers. Some of them are scientists.

All of the authors who are represented by several titles are widely recognized by educators, and the serious student of secondary education will wish to become fairly well acquainted with their thought. It is suggested that the reader browse enough to select what appeals to him and follow his own preferences, although he may wish to consider first some books which are usually very well liked by the majority of students of secondary education. Bode's *Modern Educational Theories* is stimulating and well salted with lively good humor. It and his *Conflicting Theories of Learning* deal with the issues mentioned in this chapter. For those who enjoy more pungent criticism, the book by Buchholz will provide some fun. Curti's book offers a

pleasant initiatory experience for those who hesitate to plunge immediately into the depths of educational theory. Cole's *History of Educational Thought* is clear and readable, and will be useful particularly to students who prefer not to read too much or to get too many ideas quickly. The book by Demishkevich serves a similar purpose. If for no other reason than to be acquainted with contemporary trends in secondary education, one should read the reports on "issues" and "functions" by the Committee on the Orientation of Secondary Education. Certainly everyone has good reason to know as much as possible about the thought of John Dewey. Unfortunately, many people find his books difficult to understand, partly because of their phraseology. Curti's chapter on Dewey is excellent as a brief exposition, and Bode's writings willingly reflect his agreement with Dewey's thinking. For those who can master its abstract and somewhat ponderous mode of statement, the book by Childs is a highly condensed exposition of Dewey's general position. In general, the writings of Bagley, Judd, Thorndike tend to be somewhat conservative in their social viewpoints, while those of Counts, Kilpatrick, and Rugg lean in the direction of social reconstruction.

Those who wish to give considerable study to the problem of "transfer" will find pertinent materials in books by Herrick, Judd (*Education as the Cultivation of the Higher Mental Processes*), Orata, Ruediger, Thorndike, and Whipple.

The individualistic tendency is dealt with particularly in books by Davidson, Dewey (*Individualism, Old and New*), the National Society (*The Activity Movement*), Hissong, Mearns, Raby, and Rugg and Shumaker.

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- . *Individualism, Old and New*. New York: Minton, Balch & Co., 1930. 171 p.
- . *Interest and Effort in Education*. Boston: Houghton Mifflin Co., 1913. 102 p.
- . *Moral Principles in Education*. Boston: Houghton Mifflin Co., 1909. 60 p.
- . *The Way Out of Educational Confusion*. Cambridge: Harvard University Press, 1931. 41 p.

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- Henderson, Ernest Norton *A Text-Book in the Principles of Education*. New York: The Macmillan Co., 1916. 593 p. Particularly chaps. VI, X, XIV-XVIII.
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THE EDUCATIONAL PROGRAM IN ITS ENTIRETY: CURRICULUM REORGANIZATION

Curriculum reorganization in secondary schools. Probably the most significant effort on the part of educators to proceed rationally and systematically in the development of modifications in their program for the education of young people is represented in the revision, reorganization, or construction of curricula. Authorities have generally agreed that the improvement of its curriculum is the most urgent and important problem which confronts the secondary school. Although the results may not seem to have worked very revolutionary changes in the programs of secondary schools generally, there has been during the past few years a vast amount of labor expended in the development and application of techniques for the development of curricula. Not only have more or less expert leaders developed scores of specific techniques for the selection of curricular materials, but unnumbered teachers, usually working co-operatively and more or less systematically, have turned out literally tens of thousands of new curriculum outlines or courses of study for schools.

Although the greater part of this work has been done during recent years, it is not completely novel. The Committee of Ten, under the leadership of President Eliot, prepared a far-reaching reorganization of the high-school program of studies many years ago. During succeeding decades many other commissions, most of them concerned with special subjects or fields within the general program of studies, formulated reorganizations of curricula. There is, however, one important respect in which these earlier efforts were markedly different from significant recent attempts at curriculum construction. The earlier projects were for the most part carried on by recognized authorities in the conventional fields of academic instruction or training, depending chiefly upon their own subjective judgment. The more

recent work has been largely done by persons not so much specialists in academic subject matter as specialists in the techniques of curriculum construction as such, and by school teachers who have tried as best they could to make some use of the techniques recommended by the technical specialists and of the findings which the latter have produced.

Attempts to employ scientific or objective methods. The tendency to utilize systematic techniques and objective criteria in the construction of curricula has come about because of and as a part of the general tendency to apply in the solution of educational problems something of the spirit of science and the techniques of scientific inquiry already being used in other fields. Because educators were in the past quite unaccustomed to the use of the methods of so-called exact sciences, and because education is so different from, let us say, chemistry, geology, or even anthropology, the attempt to use scientific methods has been very difficult and the results thus far produced have not always been very useful. It is not surprising that during this period of early effort to employ scientific methods in the field of education there should have been turned a large amount of research which has only moderately exemplified either the spirit or the methods of science and which has produced findings most of which are neither significant nor trustworthy. Indeed, the very zeal and innocence with which thousands of teachers have taken courses in educational statistics and have proceeded forthwith to do scientific research testifies to their willingness to do what is demanded of them, but have served somewhat to discredit even the legitimate and relatively competent attempts to use scientific methods in education.

There are, however, instances of the employment of objective methods in the development of curriculum development which merit the serious consideration of every student of secondary education. One of the most significant is the work of Franklin Bobbitt. His work is noteworthy from a variety of standpoints. It is on the whole rigorously objective; it is systematically organized and thorough; it is exceptional for its comprehensiveness and that it is not confined to a limited part of a curriculum; it represents an ambitious effort to bring the ultimate ends of the individual's education directly into focus as the foundation for his curriculum in school. Definitely assuming that ultimately the values of a person's education are realized in the com-

petence with which he carries on his activities in life, Bobbitt sought to develop a curriculum by making a systematic and comprehensive analysis of the many activities in which individuals may be expected to be engaged. To insure having a sufficiently comprehensive enumeration and specification of these activities and to avoid the biases inherent in individual judgment, Bobbitt obtained the judgments of approximately one thousand adults. Through analysis and classification of their combined judgments, Bobbitt obtained an exhaustive and relatively detailed specification of the abilities which must normally be operative in living¹ The character of these specifications is illustrated by the following items selected at random from a much larger list of statements pertaining to abilities necessary for the maintenance of physical efficiency:

Ability to control one's dietary in such ways as to make one's food contribute in maximum measure to one's physical well-being.

Ability to employ setting-up exercises for corrective or emergency purposes when nothing better is available.

Ability to relax physically and mentally at proper times and in proper ways.

Ability to take precautions against the spread of disease.²

These sample items illustrate Bobbitt's attempt to state the functions of the curriculum solely in terms of abilities to be developed, although it should perhaps be mentioned that in the effort to specify the details of the individual's intellectual competence it seemed necessary to resort to other terms. This instance illustrates the fact that it is exceedingly difficult to identify precisely direct relationships between the individual's functioning abilities and the specific elements of his background of knowledge which obviously influence the use of these abilities. The fact that knowledge and insight do operate as controls of conduct few would deny. But the relationships involved are so complex and so largely unknown that to organize a curriculum in terms of the full and diverse range of abilities used in life, would be practically unmanageable in schools as we now conceive them. It is no doubt for this reason that many school people who have been favorably interested in the results of Bobbitt's list of essential abilities

¹ Franklin Bobbitt. *Curriculum Making in Los Angeles* Supplementary Educational Monographs, no 20 Chicago: University of Chicago, 1922. 106 p., and *How to Make a Curriculum*. Boston Houghton Mifflin Co., 1924. 292 p.

² *How to Make a Curriculum*, pp 12 ff.

have apparently been unable to make much direct application of them in the development of school programs.

Somewhat akin to Bobbitt's analysis in terms of abilities is the work of Charters, who recommends and has made extensive practical use of a mode of curriculum construction involving systematic analysis and emphasis upon ideals and activities.³ However, careful scrutiny of Charters' work will reveal a very considerable amount of attention to the selection of facts to be taught. Charters' work differs from Bobbitt's in dealing with the analysis of ideals and activities for special groups of people, whereas Bobbitt has been concerned to determine the essential elements in the basic education of all young people.

Objective studies of factual content for the curriculum. Although more widely known for his effort to state curricula in terms of abilities and activities, Bobbitt has done equally significant work in the objective determination of the nature of the factual knowledge which should be included in the curriculum.⁴ Obtaining evidence through systematic analysis of materials in newspapers, periodicals, and encyclopedias, Bobbitt and his collaborators sought to determine the nature and relative importance of "major fields of human concern" in contemporary life. Employing similarly objective procedures, Rugg and his associates analyzed books written by "frontier thinkers," authorities in their fields who had been recommended by numerous well-qualified judges.⁵ Both of these approaches produced results which suggest that in many respects the curricula in conventional secondary schools give much greater emphasis to certain academic subjects than their pertinence to the interests and needs of the layman would warrant. Many matters of considerable concern are given little or no attention in the curricula of the schools.

Curricular studies of this type have stimulated widespread activity of a more or less similar sort, and the work done by national organiza-

³ W. W. Charters, *Curriculum Construction* (New York: The Macmillan Co., 1923, 352 p.).

⁴ Franklin Bobbitt and others, *Curriculum Investigations*, Supplementary Educational Monographs, no. 31. Chicago: The University of Chicago, 1926. 204 p.

⁵ Harold Rugg, "Problems of Contemporary Life as the Basis for Curriculum-Making in the Social Studies," *Twenty-Second Yearbook of the National Society for the Study of Education*, part II. Bloomington: Public School Publishing Co., 1923, pp. 260-73. See also John A. Hockett, *Determination of the Major Social Problems of American Life* (Contributions to Education, no. 281) (New York: Teachers College, Columbia University, 1927, 101 p.).

tions of educators and by innumerable individuals and groups of teachers in local school systems could not possibly be indicated here in any detail. It may perhaps not be out of place to observe that there have been recent tendencies to develop very complicated technical procedures and complicated administrative organizations of the personnel engaged in curriculum construction. In fact, it sometimes appears that we have made a fetish of intricate sequences of processes. Yet the curricula so produced seem in many cases to be strikingly similar to what has been customary before the curricula were supposedly reconstructed. Furthermore, the fact that local school systems have frequently set out independently to develop for their own use curricula appropriate to local needs has not prevented the results from being similar to one another.

These conditions may be part of the experience which will eventually yield more fruitful and significant returns although immediate consequences are not particularly satisfactory. Judging the movement for curricular reform in terms of the results which it has thus far produced does not give grounds for much optimism. Briggs very forthrightly describes the situation thus:

During the past decade we have had a movement toward curriculum reform. It was easy to convince teachers, administrators, and the public that reform, especially in secondary-school curricula, was needed. Literally hundreds of schools, each one working independently, adopted the program. The usual procedure was as follows. The superintendent appointed a committee, sometimes going so far as to free one or more members from their normal duties, and directed them to go ahead and reform the curriculum, calling on teachers to assist. Without question the curriculum is the most important element in education, far more important than buildings and equipment, which, of course, are merely means of facilitating the teaching. It would immediately appear ridiculous if teachers were asked in their spare time to lay brick, to hang doors, or otherwise to assist in the erection of a building, for which most of them would be manifestly incompetent. But apparently it seemed to almost nobody unreasonable, as indeed it was, that teachers should be expected, in addition to carrying on the work for which they were employed, to reform the curriculum, for which most of them are as incompetent as they are to do construction work on new buildings. Of course many teachers have valuable contributions to make to courses of study and they should constantly be both informed of the program of major changes and consulted regarding them, but we may as well in honesty admit that the great majority have neither the time nor the competence

to reform the curriculum. Why has it not occurred to our professional administrators that curriculum reform is a huge task for experts and that machinery for this paramount operation should be provided by the public, as well as physical equipment?

To the credit of their professional spirit, these committees have accepted the challenge. Almost invariably they began by reading the books by Charters, Bobbitt, and other theorists. If they read these books intelligently, they must have realized that the proposed programs would involve an amount of work and require time and money and skill far in excess of anything that was available in any single community. What, then, was the next step? The curricula were left unchanged or slightly modified by votes based on inadequate information and unrelated to any commonly accepted philosophy, or else principles were approved — and henceforward neglected. Either the subcommittees that were formed wrote new courses of study for old subjects, contributing what they could from experience and common sense, or they followed the time-old procedure of writing other cities which supposedly had solved the problem and then using the equally time-honored scissors and paste method. Has the secondary-school curriculum been reformed? It has not. That courses of study have been improved one can scarcely deny. But when contrasted with the hopes that sprang from a generally appreciated need the changes have been small indeed. It would hardly be an exaggeration to say that when contrasted with the need they are insignificant.⁶

Those who are pained by this indictment and suggest that it minimizes the achievements of those who have attempted to reform the curriculum, should consider the possibilities of any greater accomplishments from local school systems acting independently. If these conditions represented merely the best efforts of our localized secondary-school system to do its utmost in the face of great difficulties the situation would be sufficiently discouraging. But it is partially supported by an assumption which educators seem to cherish unduly. It is commonly stated that the educational program of the high school should be developed in terms of the needs peculiar to the local community.

Ascribing merit to provincialism. Professor Bagley trenchantly observes that "The notion that each community must have a curriculum all its own is not only silly, but tragic."⁷ He shows very properly

⁶ Thomas H. Briggs: "Jeremiah Was Right," *Teachers College Record*, 32: 684-85 (May, 1931).

⁷ William C. Bagley: *Education and Emergent Man* New York: Thomas Nelson and Sons, 1934, pp. 145 ff.

that the extraordinary mobility of the American people and the "need of a democracy for many common elements in the culture of all the people, to the end that the people may discuss collective problems in terms that will convey common meanings," make localized and provincial education both impracticable and undesirable.

We do not have much accurate information concerning the extent to which American youth generally migrate from place to place in this fair land, but we know that large numbers of pupils are transferred from one school system to another, and that they continue to migrate after they have left the schools. Even if it were desirable to develop local curricula, to make young people as provincial as possible, their migratory habits would interfere with the process. Furthermore, educators rightly emphasize the integrating function of the schools. In contrast with many nations we are literally vast and sprawling. Our national life is an amorphous pattern of uncrystallized diversities. We are beset with sectionalism. In the midst of these diversities we are confronted with many urgent problems which are national in character. We need increasingly the national solidarity which is promoted by common interests and insights. In relation to this necessity the tendency to foster local curriculum construction deserves to be called reactionary and antisocial. However, it is only fair to consider the fact that the American school system is traditionally a congeries of independent local units. Lacking the necessary machinery and financial support for co-operative effort on a broader scale, educators have been more or less compelled to make the best of a bad situation.

The development of centralized agencies for the co-ordination and direction of research in the construction of the secondary-school curriculum might well be fostered. Scores of individual research projects now undertaken independently might then be more widely and wisely used than they are at present.⁸ Some persons have been wont to criticize the methods of analysis recommended by Bobbitt and Rugg on the assumption that, since they have as yet had so little

⁸ Cf. Howard E. Wilson: "The Selection of Content for Social Studies Courses," in the *Fourteenth Yearbook* of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1936. In reporting upon analytic projects for developing curricular materials for the social studies alone, Wilson mentions approximately seventy studies completed during recent years. Presumably the analytic research in connection with the social studies is greater than in some other fields of the curriculum. However, it suggests the feasibility and desirability of pooling and co-ordinating this work.

practical effect on the curricula of secondary schools, they are inherently impracticable. However, they may prove to be eminently practicable whenever curriculum construction is undertaken on a large-scale, co-operative basis. Furthermore, it would hardly be fair to say that the many individual research projects modeled after the earlier work of Bobbitt and Rugg have been useless. They have undoubtedly influenced indirectly the revision of many local curricula, and they have served to demonstrate and clarify the problems involved in their further refinement and use.

Attempts to modify methods of teaching. A somewhat less fundamental approach to the improvement of the experiences of pupils in the secondary school is involved in widely recommended changes in the internal arrangement of subject matter and teachers' method of teaching it. In general, such efforts seem to assume that the subject matter now included in the curriculum is all right, provided it can be arranged and presented differently. One of the most recent and popular efforts of this kind has been the arrangement of subject matter in so-called units. Exponents of the plan differ considerably in their conceptions of the characteristics of a unit, but it is likely to be more comprehensive than a day's lesson, or even several days' lessons. It is supposed to be so constructed that its several elements fit together in such a way as to make sense and to promote a more effective repertoire of exercises than are customary in classes where pupils are made to recite from textbooks.⁹

Morrison, who has been very influential in popularizing the use of units, has advocated a very definite ritual or schematization of instruction. Once the subject matter has been arranged according to the pattern of an approved unit, it is recommended that teaching procedure should traverse certain sequential steps which are designated as "exploration and presentation, assimilation, organization and recitation." Those who are familiar with the steps of the Herbartian formal development lesson which was in good standing several decades ago will recognize certain resemblances. Morrison makes detailed specifications to govern the activities of pupils and teachers in using

⁹ For a full discussion of the various conceptions of teaching units and a selected sampling of units employed in different schools see Roy O. Billett: "Plans Characterized by the Unit Assignment," Part II of *Provisions for Individual Differences, Marking and Promotion*, U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 13, pp. 227-392.

a unit, and presents the special adaptations which are presumed to be necessary in different fields of subject matter.¹⁰ It has become the *vade mecum* of countless teachers, and its influence is immediately observable to one who watches them at work in the classroom.

Teaching by means of projects also merits brief mention. In its unadulterated form the project method of teaching frequently results in marked departure from conventional subject matter. Theoretical enthusiasts for teaching by projects commonly recommend that the pupils enrolled in a class should decide what their goals will be and how they will undertake to accomplish these goals. Teachers are advised to encourage pupils to undertake realistic and tangible enterprises which will seem valuable to boys and girls and to try to see to it that they learn incidentally or unintentionally what the school conventionally expects them to learn. If pupils are encouraged or permitted genuinely to determine what they will do and how they are to do it, such departures are inevitable. But not infrequently the elaboration of activities involved in a school project is analogous to the stage business and settings which give to the threadbare lines of an old play the temporary semblance of reality.¹¹

It is very much to their credit that teachers have sought by such means to surmount the handicaps of a curricular program which seems too unreal to challenge or convince the boys and girls whom it is intended to serve. The extent to which such devices are used indicates that teachers are aware of inadequacies in conventional instruction and are willing to undertake such innovations as they can produce individually within the limitations of established curricula. In spite of these efforts, it is generally recognized that secondary-school instruction is not as effective as it should be. In fact, by their somewhat artificial injection of vitality into subject matter intrinsically lacking in vitality, these special instructional devices have probably served to delay more fundamental reorganization.

The urgency of comprehensive reorganization of the educational

¹⁰ Henry C. Morrison: *The Practice of Teaching in the Secondary School*, revised edition. Chicago: The University of Chicago Press, 1931 688 p.

¹¹ If the reader is already acquainted with the J. Abner Peddwell lectures on the theory and practice of education in a mythical and remarkably modern paleolithic community, he will recall that, when the complete extinction of local tigers had made the saber-tooth curriculum both meaningless and futile, the school was glad to get an imported tiger to vitalize the curriculum. See Harold Benjamin (J. Abner Peddwell, *pseud.*): *The Saber-Tooth Curriculum*. New York: McGraw-Hill Book Co., 1939 139 p.

program. Secondary schools generally must, and probably will, soon develop greatly improved programs for boys and girls. During the years in which secondary-school enrollments were growing by leaps and bounds the schools had all they could do to provide expanded physical facilities, to obtain more teachers, and to develop administrative procedures for keeping the schools in reasonably smooth operation. There was not much opportunity to make any fundamental changes, and even if they had been made immediately they might not have been appropriate, for many of the pupils who were coming to the schools were very different from those with whom the school had dealt previously.

The school is now in a much better position to make fundamental changes. It is not only unlikely but quite impossible that enrollments will again increase as rapidly as they have in the past. The school has now had enough experience in attempting to deal with its newcomers to recognize the futility of attempting to maintain the present program and to provide some help in developing a better one. Furthermore, the lay public is becoming increasingly aware of the existence of what it calls "the youth problem," so that there will be a general disposition not merely to permit the schools to renovate their practices, but to penalize them if they fail to make substantial and promising changes.

Although it would be impossible to predict the changes to which the schools are likely to give chief attention during coming decades, there are certain obvious needs which can hardly be neglected and which have very direct bearing on the kind of educational program which the school should attempt to provide. There is need, especially, for a broader and more realistic conception of the school's traditional purposes in relation to social conditions and the needs of young people, in order that these purposes may be more intelligently and honestly built into the very vitals of the structure and working of the school's educational program.

A broader conception of purpose. It must be clearly recognized at the outset that the secondary school need not, should not, and probably could not discard entirely its traditional purposes. It is to be hoped that educators will not permit their capacity for going to extremes to beguile them into disavowal and abandonment of functions so essential and fundamental that they have necessarily become tra-

ditional. On the contrary there must be discriminating distinction between the school's lasting functions and the practices through which it has in the past attempted to meet its essential obligations. Although many elements of its practice have by this time become obsolete, inadequate, or recognized as intrinsically unsuitable, and ought therefore to be forthrightly eliminated, and although some of these practices have become so distasteful that they have tended to discredit even the recognized functions of the school, there is nothing to be gained through the abandonment of these functions. Nevertheless even the fundamental purpose of a school must not be permitted merely to persist as an isolated institutional objective far removed from the stimulating and changing necessities of contemporary life. If the school's purpose is to remain valid, if it is to persist vitally and fruitfully, it must develop in much the same way that the school's practice must change.

The development of social intelligence. It has long been a major element in the school's purpose and practice to increase the pupil's knowledge and his mental powers. This necessity has in no sense diminished, but there are several ways in which the need for knowledge and its use, and our conceptions of the very nature of knowledge and its uses, have changed very greatly.

Because of a democratic society's fundamental need for citizens who are not merely well informed in certain particulars, but broadly informed throughout the full gamut of both individual and social concerns, the secondary school can no longer content itself with offering to its pupils any old knowledge which it happens to have become accustomed to present. As long as it could assume that its disciplinary purposes could be arrived at through the use of subject matter supposed to be particularly appropriate for mental discipline, it could justify a very partial and culturally irrelevant selection of subjects. Moreover, as long as it served young people who had intimate personal contacts with the readily observable and relatively simple environment of the nineteenth-century American community, it could easily justify emphasis upon subjects which had no very full bearing on the everyday environment, and could devote itself chiefly to culturally eccentric specialties for the personal gratification and adornment of individuals who wished to have them. But a school which today assumes the responsibility of developing in young people the well-

informed intelligence which is necessary both for the direction of individual living and for the maintenance of a democratic society must provide a curriculum of adequate breadth and significance.

The subjects most commonly offered in the secondary school today are for the most part not there in consequence of our changing conception of preparation for intelligent living and of the need for an enlightened citizenship. Some are there because we have uncritically perpetuated the disciplinary traditions of the Latin grammar school. Others are there because they were most appropriate to the individualistic atmosphere of the academy, and because they have managed to escape the disapproval of college authorities who have sought from time to time to set the high-school house in order. Still others have been more recently promoted as accretions to serve some special need. Neither in their entirety as offered to all pupils nor in their selected parts which comprise the programs of individual pupils do they provide anything like an adequate presentation of the broad areas of knowledge which are essential fields of human concern. Furthermore, some of the fields which are represented in the program are so organized and taught as to emphasize the production of performance ability or proficiency of some sort. Special proficiency is useful, but it is neither the equivalent of nor an acceptable substitute for essential knowledge.

Obviously, the secondary school cannot give its pupils all knowledge. Of all that it might possibly present it can give them only a little. Even for its most capable pupils the school with the fullest possible program can do little more than provide an introduction to the many matters in which they must develop insight and interest, and for its less able youngsters this introduction must be even more limited. But the school is obligated to offer to all its pupils definite opportunities to know about and develop active interests in the many aspects of their environment and their places in it which necessarily concern the competent citizen. Of course, some individuals for whom the school may have provided partial and unbalanced instructional offerings will undoubtedly be found somehow or other to have developed insights and vital interests in other things which the school has neglected. But such good fortune is no excuse for bad management on the part of the school. The school may reasonably expect that boys and girls will come to know about matters which they have oppor-

tunities to learn about. It must, therefore, supply to all boys and girls a basic program of instruction so broad and balanced as to include every major field of human concern. This program must epitomize and serve as an introduction to our best available insights concerning the salient elements of our civilization.

The breadth of such a program will undoubtedly arouse objection from some persons, particularly those who have a stake in the preservation of certain academic subjects which now dominate the secondary-school program. Such persons may be expected to decry the superficiality which they see in a broader program, and to insist that one of the advantages of the conventional scheme is that its specialized emphasis promotes thoroughness. They may remind us that what is worth doing is worth doing well.¹² This is merely begging the question. Limited specialization in a few academic subjects is unquestionably an appropriate means of producing academic specialists. But the young citizens who attend the secondary school, even though a few of them may eventually become specialists in the scholarly sense, must all be broadly educated for social intelligence.

These changing conceptions of the school's purpose in the presentation of knowledge have certain very practical implications for school practice. Obviously, the school must provide for pupils a much broader offering of subject matter. It must make far more than piecemeal adjustments of its curricula. What is needed is fundamental reconstruction. Such efforts as have been made during the past two decades may seem not to justify much optimism concerning the possibilities for the future. It is certainly not to be expected that schools can soon make efficient use of the highly complicated procedures which are frequently recommended by specialists in curriculum construction.¹³ It is indeed possible that there should be less attention given to the employment of the detailed and complicated elements of these currently esteemed procedures and more direct and common-sense effort to consider what there is in the world that young citizens need to know about. Until there has been more effort to formulate at least the broad outlines of a program intended primarily

¹² Perhaps we should remember that G. K. Chesterton had the wisdom to observe that what is worth doing is worth doing poorly.

¹³ See, for example, the diverse and complex principles and practices presented in Hollis L. Caswell and Doak S. Campbell *Curriculum Development* New York: American Book Co., 1935. 600 p

to present to young people the matters which everyone needs to know about, complicated attempts at refinement are likely to be wasteful and distracting, if not actually futile.

If the school does soon provide adequate offerings for this purpose, it must modify its tendency to extend the elective system. As long as most of the courses and subjects offered are specialties suitable for some pupils but not for others, it is only reasonable that it should permit considerable discrimination whereby the individual may take some and avoid others. The fact that many schools have tended during recent years to make optional certain subjects which they formerly required of all pupils indicates that the specialized character and values of much of the secondary-school offering are not appropriate to the development of the basic insights and interests which should be developed in everyone. As the schools develop curricula for these purposes, rigorously excluding from them training which is appropriate only for some persons, it must plan to see to it that all pupils are enrolled for these curricula.

There must be also greatly increased provision for instruction suitably adapted to different levels of ability and promise in pupils. If the school neglects to provide basic courses for instruction in matters of common concern, it can at least make more or less feasible adjustments to different ability levels by permitting bright youngsters to enroll in some specialties and by shunting those of inferior aptitude into other subjects. As it attempts to offer basic curricula for all boys and girls, the school will be compelled to develop very substantial changes in its methods of teaching. In fact it is likely that the development of adequate facilities and procedures for the presentation of this basic subject matter will call for no less ingenuity and willingness to depart from academic custom than is demanded in the formulation of new curricula.

Changing conceptions of knowledge. Just as important as our changing conceptions concerning the scope of the knowledge needed by young citizens are our present conceptions of the nature and functioning of knowledge itself. So dissatisfied have we become with the ways in which the school more or less traditionally attempts to increase the youngster's knowledge that some educators have come to distrust knowledge and to recommend substitutes for it. Others who recognize its great value to the individual and to society criticize

the school for its meager conceptions of knowledge and its faulty procedures in dealing with it.

Some persons who have observed the extent to which many pupils fail so completely and repeatedly to grapple effectively with the academic subjects offered in secondary schools decide that such pupils are unable to get knowledge, and that it is better to provide training for their hands than education for their heads. There are enough instances in which pupils are shifted with apparent profit from academic instruction to some type of shop training to lend plausibility to the idea that knowledge is an appropriate possession for some people, but not for others.

A somewhat different mode of disparagement of knowledge as such is represented in the view that pupils should not be taught facts, but that they should be taught how to think. In a sense this is but a more modern statement of a disciplinary conception of the educative process, although there is a difference between the disciplinary notion of strengthening the existing faculties or powers of the mind and the more modern idea of establishing through specific training certain methods of thought. The educator who esteems and emphasizes the value of training people to make habitual use of certain systematic methods of thinking need not derogate the value of knowledge. In fact the pupil does not think in a factual vacuum. He must have something to think about. Perhaps we sometimes minimize the importance of knowledge merely because the business of acquiring methods of thinking seems to be so much more important.

A variant of this objection to knowledge is the idea that we should not teach people facts, but teach them how to find whatever facts they may need when occasion arises. Perhaps it is assumed that we can teach so few facts and are so incapable of determining what particular facts will be needed later that the pupil's possession of facts is more or less useless as compared with the supposed utility of being able to set out and find needed facts when they are needed. Here again it appears that the person who wishes to teach people how to get facts need not overlook the importance of factual knowledge in the educative process. Presumably a person who is learning how to get facts should actually get some. If he does not, he is likely soon to be convinced that there is not much sense in the business.

Whatever their reasons may be, it is not uncommon for educators

to belittle the value of knowledge, and even to imply that a fact is a poor sort of thing which no self-respecting person should wish to have found in his possession. If taken at their face value these criticisms and disparagements are undoubtedly a serious indictment of the school's traditional practice in increasing the pupil's knowledge. However, their significance may be better understood if they are considered not as isolated theories but as reactions against a conception of knowledge seemingly implied in school practices which are all too common. Undoubtedly the schools' teaching of facts is in disrepute partly because the kinds of facts dealt with are not the right facts for the young layman to have. As we have seen, they tend to be the kinds of facts which certain advanced academic specialists esteem. At best they are only a partial, remote, and eccentric representation of the realities which are the necessary and appropriate concern of the well-informed citizen. But there is another way in which much of the school's practice implies a very meager and weak conception of facts and knowledge. What the school identifies as a fact is merely the verbal statement of or symbol for a fact. What the school demands is often merely unthoughtful memorization of the verbal statement or symbol. And what the school accepts as evidence that a pupil has knowledge of a fact is more or less temporary ability to repeat the verbal statement orally or in writing. Such implied conceptions and actual practices are not universal, but they are so common as to make it very easy to see why some persons have been led to suppose that the teaching of facts is a sorry and unprofitable practice for which another quite different should be substituted.

Other objectors to the school's implied conception of facts and of knowledge reject and disparage the conception, but they see no reason also to reject and disparage knowledge or to supplant such knowledge with spurious substitutes. They would insist upon a more fruitful conception of facts and of knowledge of facts, and upon educational practices which promote the full development of the pupil's knowledge in the best sense. These broader conceptions of knowledge and of the conditions necessary for its full development as a vital element in the pupil's personal competence cannot be stated adequately in brief compass, but there are certain salient emphases which deserve at least passing mention.

Knowledge as necessarily abstract. It helps somewhat to recognize

definitely the intrinsically abstract character of knowledge. In contrast with the concrete realities of which they are the symbolic counterparts the functioning elements of knowledge are singularly lacking in substance. One need only consider the nature and operations of his own imagination and reverie to realize the great degree to which his thinking may go on with almost complete independence of his external environment and even of his own overt physical activities. This is of course particularly true of those who have most fully developed their capacities for thought, which suggests that the abstract character of knowledge is what makes it so very useful. Indeed it is the potential capacity for abstract thinking which man looks upon as his distinctive advantage as a human being. The school must, of course, provide for young people opportunities for the development of competence in abstract thinking. But it is axiomatic that the developmental processes must be provided for. It serves no good purpose to attempt to omit the developmental processes through which the pupil develops mastery of abstract knowledge. In other words his knowledge is not something which has been injected into him in its pure form. He must himself have abstracted it from the tangible realities of which his thoughts are the abstracted symbols. It is for this reason that education has sometimes been figuratively characterized as world building. The pupil builds in the abstract symbolism of his own thought his own conceptions of the world, but he builds it out of the stuff of his own experiences. Unless he has become aware of the realities from which his knowledge should get its validity, his knowledge does not represent his own abstraction of the meanings of the real world. It serves rather as a distraction from the realities, with which he is incompetent to deal effectively. Knowledge for its own sake is a comfortable possession of those who are so situated as to be protected from the real world, which is prevented from impinging upon them too sharply. Such persons can build for themselves a world quite apart from reality, and indeed find much satisfaction in it. But the youngster who must and should develop the insights which will increase his ability to deal with real situations effectively must have developed these insights through awareness of the realities to which they have valid reference. To attempt to give him knowledge which has been abstracted by some other person is to overlook his own need for awareness of the realities through which he may develop his own knowledge.

Closely related to his need for opportunities whereby he may develop his own knowledge in relation to the realities which give it its validity is the necessity of his identifying his knowledge as his own need and his own cherished possession. Educators have frequently referred to the value of purposeful learning. Some have gone so far as to insist that the pupil's purposes are so important that he should learn whatever he wants to learn. Others say that he should be made to want to learn what somebody else thinks he should learn. Unless the pupil recognizes the values of knowledge for himself personally, he is less likely to come into vital possession of it. Particularly if it is so abstract as to seem unreal and so remote from his own concerns as to seem eccentric, his possession of it may be merely nominal. It is commonly observed that many pupils are so little convinced of the value of the knowledge which the school offers them as to make no serious attempt to get possession of it. Many other pupils become sufficiently aggressive to learn enough to entitle them to receive acceptable academic credits. But in the typical secondary school there are relatively few boys and girls who are noticeably enthusiastic and zealous in their effort to get as much knowledge as they can. It is undoubtedly for this reason that books on methods of teaching and the supervisors of classroom teachers stress so much the necessity of "motivating" pupils to learn. And teachers themselves are often very hard put to find ways to do it. This difficulty would be greatly reduced if the knowledge which the school seeks to develop were intrinsically valuable for the pupil. The school should, to be sure, always have some responsibility for motivation, for the values of even the most significant knowledge are in the nature of things not realized by the individual who has not yet possessed it and used it. But the critic of school practice does well to insist that we recognize the fact that the pupil will most effectively acquire that knowledge which he recognizes as important and valuable for him.

A further point of emphasis, which is in many ways very similar to the pupil's recognition of the worth of knowledge as an incentive for acquiring it, is the belief that even the zealous acquisition of knowledge is merely a partial element in the pupil's full mastery of it. Knowledge must be not merely acquired, it must be used. It may indeed be said that it is not thoroughly acquired except as it is used. The pupil who reads the words of his textbook and is able to memorize

them at least in part and long enough to repeat them to the teacher on demand a day or a month later is presumably acquiring some knowledge and making some use of it. But neither acquisition nor use is sufficiently substantial and vigorous to satisfy the critic who emphasizes the importance of establishing insights through use of them. He reminds us that the kind of knowledge represented in temporary memorization of isolated and fragmentary verbal statements of facts is of very low order and that it is hardly a creditable objective for a school which undertakes to provide the bases and beginnings of thoughtful and interested intelligence in the civic and personal affairs of life. Even if the school were satisfied merely to aid its pupils in memorizing fragmentary and meaningless verbal statements, it could not expect that these acquisitions would be at all permanent except as they were used in one way or another after they had been once acquired. But if the school undertakes to develop in pupils a higher order of knowledge, if it seeks to produce vital insights and appreciations, it must see to it that even in the process of acquiring new knowledge the pupils use the knowledge already developed. And if, as indeed it must, it seeks to develop knowledge which will influence and give direction to conduct and competence in living, the school must also see to it that knowledge is used not merely in the development of further knowledge, but that it is continually applied in the realm of personal action. In brief, the pupil will not even acquire knowledge effectively unless it is sufficiently realistic for him to see its validity, unless he recognizes in it important intrinsic values for himself, unless he builds into it the knowledge which he already has, and unless he makes continuing application of it in his day-to-day living. It seems likely that none of these factors is adequately provided for in conventional secondary-school instruction, although it appears that there is more emphasis upon the acquisitive aspects of developing knowledge than upon the culminating aspects involved in its use and application in everyday life.

Implications for the program of instruction. These newer conceptions of the nature of knowledge itself and of the ways in which pupils will most effectively develop understanding and insight and establish tendencies to make continuing use of knowledge only further confirm the need for fundamental reconstruction of the program of instruction to develop the basic social intelligence which is the essential need of

all citizens in a democratic society. It is apparent that the curriculum must provide not only much more completely, but also much more directly than it has heretofore provided, opportunities whereby pupils may see and come to understand the realities of the world in which they live. No longer can we justify a program which either completely omits attention to important fields of general human concern or implies that pupils will somehow or other eventually come to know about them by giving attention in school to something else. In addition to including definite opportunities wherein pupils may see and understand as broadly as possible all of the areas with which they must be concerned, the instruction in basic subjects must be given with sufficient clarity and directness to permit them not merely to acquire needed knowledge, but to acquire it with enough ease and celerity to enable them to devote ample time and attention to its use and application also. As far as the school's basic curriculum for the development of common social intelligence is concerned, there is, therefore, a threefold need. The program of basic factual subjects must be fully representative of all major fields of human concern. It must be so presented to pupils as to facilitate the pupils' acquisition of knowledge. The curriculum must provide much more fully than it does at present for those experiences in the use and application of knowledges which are productive of satisfying personal interests and well-established tendencies to utilize increased understanding in the normal activities of everyday life.

The development of specialized abilities and talents. The development of knowledge and active interest in basic fields of human concern is but one phase of the school's function. It is presumably its most important function, but it is by no means its only important responsibility. There must be provision also whereby young people may develop certain specialized abilities for individual use. The conventional secondary school usually offers a number of opportunities for pupils to develop such specialties. Indeed it often offers them in such a way as to permit training in them to serve as a substitute for instruction in subjects in which factual knowledge is the dominant element. It would no doubt help a good deal if schools would recognize the obvious difference between training to produce special proficiency or skill and instruction to develop understanding and insight. Neither is the equivalent of the other, and it is particu-

larly important that a school which undertakes to provide instruction in fields of knowledge which are important concerns for all pupils should not encourage the substitution of specialized technical training for any part of that basic instruction. These two very different types of education should be so administered as not to compete, as they usually do at present, but to complement one another.

Training in techniques. We have seen that many of the courses commonly offered have to do chiefly with the development of skills. Merely to mention the names of such courses as typewriting, sewing, French, algebra, woodworking, stenography, or oral English is to suggest emphasis upon the considerable amounts of repetitive practice and sometimes tedious drill which are necessary to develop useful technical abilities. But there are additional types of ability which the secondary school seeks to make habitual in one way or another. Algebra is sometimes said to be a training ground for "functional thinking." Geometry on the other hand is said to give practice in postulational thinking. Courses in the natural sciences are asserted, at least by their sponsors, to be a peculiarly suitable field for training in the scientific method of thought. And sometimes one encounters in one field or another a supposed attempt to train pupils in "creative thinking." All in all there are few pupils who get through the secondary school without having encountered several attempts to produce in them technical competence of one sort or another. These various types of training differ considerably in their intrinsic characteristics and in the pedagogical devices used in their attempted production, but they have certain common qualities and related problems which merit consideration.

Time required for acquisition of technical skill. In the first place, the development of the proficiency at which they aim is time-consuming. The person who sets about to become a master of any special ability or skill "has a job on his hands." Some skills obviously require much more time than others in the attainment of any acceptable degree of mastery. For example, one can develop a reasonably satisfactory ability to perform with the typewriter in less time than is required to learn to play the piano. And one can more readily learn to manipulate a calculating machine than to manipulate algebraic polynomials. But in contrast with the rapidity with which persons may gain insights, the development of skilled proficiency is a

slow and tedious process. Insight may come in the flash of an instant, but technique is perfected only through much practice. The necessity of investing large amounts of time in almost any sort of effort to develop performance skills is a very important consideration in determining the proper place of technical training in the secondary school.

Limited utility of technical skills. In contrast with knowledge, technical skills are characteristically limited and inflexible for useful application. Inasmuch as skilled performance of an act necessarily involves relatively automatic, habitual, unreflective behavior, it lacks those elements of conceptual awareness which are essential for "transfer." Available evidence does not warrant any conclusive decision concerning the extent to which the possession of one sort of skill facilitates performance in another. But it appears to be reasonably certain that the amount of transfer is small. For example, there is no reason to believe that the possession of skill in dancing the highland fling or in oral interpretation of Shakespeare will enable one to use the Australian crawl or to converse easily in French. Furthermore, the general applicability of skills or performance abilities is limited not only by their psychological characteristics, but also by their relationship to the environment in which they may be used. Even if it were possible for one to make various applications of a particular ability, the environment is a limiting factor. For example, it is difficult to swim anywhere but in water. It is unlikely that one will use his abilities to operate a lathe unless lathes are available. And even if one can speak French whenever he wishes to, he does not do so unless he happens to be with those who understand French. These matters may seem obvious. But they are exceedingly significant when they are considered in relationship to the time-consuming character of the development of skill. They suggest that the secondary-school pupil should not be permitted to waste his time and energy and the human and material resources of the school in the attempt to develop any special skill unless there is considerable probability that he will have definite and extensive opportunity to use it. If there were no other way in which his time might be fruitfully employed he might justifiably be given the opportunity to develop a few skills on the assumption that these skills would do him no particular harm and, in fact, might sometime, somewhere, somehow be of use to him. (Of course, even this excuse is not valid unless it is assumed to be proper for the school

to gamble with substantial amounts of the taxpayers' money.) There are, however, other and more valuable ways in which pupils can spend their time. As the program is administered at present the pupil who takes courses in which skill is a major objective reduces proportionately the amount of attention which he gives to factual instruction. Since the curriculum of facts is in its entirety only a very meager representation of the realities which the prospective citizen needs to understand, the pupil who neglects considerable proportions of it in the attempt to acquire skills of dubious utility can by no stretch of the imagination be said to have a good education for intelligent citizenship. Specifically, there are in most secondary schools large numbers of pupils who nominally undertake to develop proficiency in the use of mathematical techniques, of foreign languages, and of various specialized practical arts. Not only is it exceedingly unlikely that many of these pupils will ever attain useful degrees of proficiency in them, but probably few will ever have substantial occasion for using these skills, even if they were able to do so. Furthermore, pupils engage in these training-for-proficiency courses at the cost of neglecting other subjects in which essential insights are major goals.

Certain skills needed by all pupils. It must nevertheless be recognized that there are certain skills which are needed in some degree by all persons, irrespective of special interests or personal occupations. Abilities to use the vernacular in speech, reading, and writing are obviously needed by everyone and are useful in a great variety of situations. On the other hand, there are certain abilities which are needed by relatively few persons and which are not applicable in many situations. For example, there are relatively few persons who need to be skilled in using algebraic techniques, in the use of carpenters' tools, in reading Latin, or in the use of the compound microscope. Hence, the secondary-school program should reflect a careful distinction between skills the need for which is confined to a small number of persons and the use of which is limited to relatively few situations, on the one hand, and skills which are needed in some degree by all persons and which are useful in all sorts of situations, on the other hand. Presumably, it would be desirable rather strictly to exclude from the basic curriculum training in all types of skill for which there is limited need and usefulness. Training courses for these specialized skills

might be organized and administered as a division of the program separate from the curriculum intended to provide essentials for everyone.

If the program of specialized technical training were looked upon not as an equivalent substitute for the curriculum of basic essentials but as an additional and supplementary adjunct, several very considerable advantages might be expected to result. In the first place, all pupils would then be able to obtain a full and balanced program of basic essentials, since these might well be required of all pupils, whether they engage in special technical training or not. Furthermore, it would then be easier to keep out of technical courses many pupils who now undertake them without any important result other than the lowering of performance standards and the correlative degradation of morale which now afflicts the secondary school. For example, studies of foreign language training have indicated that one of the chief causes of the discouragingly poor results in that work is the presence of large numbers of pupils who have no "aptitude" for language training. Possibly what is called lack of aptitude is to some extent lack of any ambition or lack of consciousness of any need for the training. At any rate, if training in abilities to use foreign languages, specialized branches of mathematics, and various technical arts were administered as supplementary training only to be begun by those who have definite special need of them and continued only by those whose rate of accomplishment is substantial, the secondary school might be able to produce a creditably high level of technical proficiency on the part of those who really need it and are able and willing to attain it.

Influence of vested interests on curriculum changes. It is to be expected, of course, that the numbers of pupils engaged in any one type of technical training would be very much smaller than the numbers nominally enrolled for it at present. This prospect perhaps serves practically to hinder the transition to the kind of program which is here suggested. Even though teachers who now sponsor technical training of one sort or another are often disheartened in their futile attempts to produce linguists, stenographers, cabinetmakers, mathematicians, or draughtsmen, they have some personal misgivings about any proposal which promises to reduce sharply the number of their pupils. This is a matter which cannot lightly be ignored, for the

secondary school undoubtedly has some moral obligations to teachers who have undertaken to adapt themselves to the sort of program which it has traditionally maintained. However, the vested interests of teachers must ultimately give way to the educational needs of pupils and to the general advantage of the society which supports the school.

Probable effects of reducing emphasis on technical training. The administration of specialized technical training separately and as a supplement to the basic curriculum will also facilitate adaptation to the different capacities of individuals. Presumably, only those who had definite need for specialized training would participate in it. Ordinarily the pupil's awareness of this need and of the fact that technical training is provided only for those who can and will make substantial progress in it should serve as a powerful incentive for purposeful and responsible achievement. Given relatively small numbers of pupils who are able and ambitious to develop certain abilities as rapidly and fully as possible, the teacher in charge of a particular type of training should find it possible to permit and encourage considerably more individualization than is possible at present. Since a specialized ability or skill is likely to be peculiarly an individual matter which does not require the direct co-operation of other persons, it is particularly fitting that technical training should be as far as possible administered individually. For example, swimming, piano playing, sewing, the accurate solution of quadratic equations, typewriting, architectural drawing, woodworking, and the like, are characteristically individual in character. It is possible to do some of these things in a social setting, but the activities themselves are the activities of individuals performing rather independently.

Possibilities in the small school. If training in specialized abilities is to be frankly recognized for what it is, and offered somewhat distinctively as an elective supplement to the basic curriculum, the small secondary school particularly will be considerably handicapped in offering regularly a large variety of types of training. In fact, the small school is handicapped in this respect no matter how its offering of technical training happens to be administered. However, there are various possibilities which might be capitalized in order to extend the potential range of courses of technical character. For instance, the program could be changed somewhat from year to year. A considerable offering of technical courses could be developed, with the

understanding that they would actually be made available whenever there is sufficient demand for them and only as long as the demand exists. Also, considerable use could be made of manuals and other aids to be used at least partially upon a self-instruction basis. Rather than being a handicap, it might be educationally profitable to give the pupil experience in learning how to develop some new ability by making use of his own resources. This is not intended to imply that he should be entirely without needed supervision. A great deal of the practice and drill which is necessary in the development of technical ability need not be carried on always under the immediate personal guidance of a teacher. If the secondary school can be made to discard some of its traditional customs in administering technical training as if it were necessarily a social enterprise to be carried on in lockstep by groups which include many persons who have no apparent need or aptitude for it, a given amount of instructional service may be made to go a good deal further than it now goes in attempting to provide adequate technical training of specialized character.

Universal importance of some technical abilities. However, technical training needed peculiarly by certain individuals is by no means the only type of technical training for which the secondary school assumes some responsibility. There are certain abilities of fundamental importance; everybody needs them and they can be used almost everywhere. Abilities in speech, reading, and writing have already been mentioned as deserving recognition for their practically universal importance. Although the somewhat superficial notion that these abilities are the peculiar responsibility of the elementary school is sometimes expressed by people who ought to know better, the secondary school and even the college find it necessary and desirable to try to increase the abilities of some of their students to use the vernacular in various ways. Almost anybody will agree that the secondary school should do something about these matters, and that what it now does is apparently ineffective or inadequate.

Need of unified effort to develop basic techniques. One reason for the unsatisfactory treatment of these fundamental abilities in the secondary school is the fact that they are dealt with as if they were specialized skills. It has been mentioned earlier²⁴ that the existence of English instruction as a special field of training is interpreted by

²⁴ See Chapter VI.

many teachers and pupils to imply that the use of "good English" is somewhat peculiar to that particular enterprise, and that something very much resembling the lower levels of the colloquial American vernacular will serve very nicely for intellectual intercourse in the other fields of study and training. This disparity seems unfortunate, if only because it is another example of the school house divided against itself. It would require considerable courage to assume that the secondary school ought generally to conform to the standards of English usage which English teachers now somewhat vainly advocate; but the prospect would be somewhat dreary if the usage of the chemistry teachers were to be accepted as the standard. The secondary-school pupil, within the limitations of his own tact and adaptability, sometimes tries to meet the special expectations of particular teachers. But the lack of any generally accepted standard throughout the school diffuses and dissipates the impact upon the pupil of whatever direct instruction in language usage he may receive, with the result that the improvement of his abilities in the use of language is often meager and unsatisfactory.

Because of the fact that abilities involving the use of language are relatively so habitual and non-reflective in character, they tend to exhibit the residues of their total use. A pupil's speech abilities are surely influenced by the practices of the English classroom, but they are also the inevitable results of practice elsewhere. Quantitatively, the English class provides only a small fraction of the pupil's total speech practice, and the odds are all against the English teacher. Even if the secondary school were united in insisting upon certain standards of English usage its contest with out-of-school influences would not be easy. If the secondary school is to produce substantial results in improving the abilities of pupils to use the vernacular there must be much more agreement than there is at present with reference to the standards of performance which are to be expected.

Need of definite standards of performance. A further step in the solution of this general problem is the practical realization that the abilities which we designate generally as reading abilities, and ability to write and to speak, are specific to a considerable degree. Furthermore, individuals differ with reference to the specific abilities in which they may be proficient or deficient. These facts suggest that, in addition to setting up generally accepted standards of performance,

there must be specific and definite indications of what is comprised in them. The mere existence of these specifications, in terms sufficiently exact and concrete to be understood by all teachers and pupils alike, would greatly facilitate the general improvement of pupils' ability. The concerted requirement in all subject fields for adherence to reasonable performance standards specifically and definitely made known to pupils would likely effectively produce satisfactory competence in many cases, so that very little specialized training would need to be given except in the relatively few cases requiring temporary remedial treatment.

Inappropriateness of a single standard for all pupils. One reason for the ineffectiveness of the secondary school in attempting to develop reasonable competence in these fundamental abilities is the fact that it has generally assumed that a single standard of performance is to be applied to all pupils. No standard which is appropriate to the capacities and needs of the superior pupil can be applied to the inferior pupil, except as a means of excluding him or as a method of convincing him that there is something the matter with him or with the school which accepts him as a pupil. In like manner any standard which is at all possible of attainment by the inferior pupil is inapplicable to the superior pupil.

Training in methods of thinking. In connection with the general question of the secondary school's responsibility for providing training in generally useful fundamental abilities, mention should be made of what is sometimes called training in methods of thinking. It has already been said that certain secondary-school subjects are commended by their sponsors for their potency in developing ability in thinking "functionally," or "scientifically." The proponents of training in algebra assert that it develops competence in "functional thinking," which presumably can and should be used generally by the individual in all sorts of intellectual activities. Although the mathematicians seem to be rather sure about the nature and utility of this type of thinking, their colleagues do not find it easy to understand them or to agree with them.¹⁵ If it should eventually become appar-

¹⁵ For an extensive exposition of the nature and utility of "functional thinking," as it is advocated by sponsors of mathematics, see Herbert Hamley: "Relational and Functional Thinking in Mathematics," *Ninth Yearbook* of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1934. 215 p. See also E. R. Breslich: "Developing Functional Thinking in Secondary School Mathematics," chap. V of the *Third Yearbook* of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1928, pp. 42-56.

ent that there are certain precise abilities which pupils generally should acquire in order to think "functionally," the acquisition of these qualities would probably be greatly facilitated if training in them were made an essential part of the work in all academic subjects. Regardless of the possible merits of "functional thinking" as such, it is not likely that its employment will be fostered adequately if the mathematics teacher is the only person on a secondary-school faculty who knows about it and seeks to promote its general use.¹⁶

Similarly, sponsors of instruction in the natural sciences speak of the desirability of developing the pupil's ability to use the scientific method of thought, which is somewhat better understood by teachers generally than the so-called method of thinking functionally. There are few people who would disapprove of encouraging young people to cultivate the attitudes which are suggested by such phrases as "avoidance of superstition," "respect for systematic observation and verification as a means of getting at the truth," or "suspended judgment." Although the natural sciences have been thus far the fields in which the method of science has been most directly used, there is every reason to believe that the broad range of attitudes and modes of thought which we call scientific ought also to exist in other fields. It has become almost trite to observe that we need rather desperately to learn how to think scientifically about social facts and about the facts of human personality. If the scientific method of thought were to be emphasized in any particular field of instruction, there is probably less need for special emphasis on it in the natural sciences than in the social studies. To presume that natural science instruction is peculiarly the place for scientific modes of thought and to foster that conception among pupils is a misfortune. As far as it is possible and wise to train pupils to be habitually scientific in their thinking, teachers in all subject fields ought to assume definite responsibility for such training. This principle should be applied with reference to all abilities or modes of action which should be used generally by all persons.

¹⁶ These statements are not intended necessarily to suggest that what the mathematician calls functional thinking is something distinctive and commonly neglected at present. Functional thinking seems essentially to involve recognition of relationships among facts. In other words, it is about the same thing as understanding facts. This is a matter to which teachers of various subjects are already committed. If this is true, there seems to be no urgent reason for assigning to teachers generally the redundant responsibility of developing ability to do "functional thinking."

Major deficiencies of the curricular program. A summary of major deficiencies in the present curriculum of the typical secondary school will serve to suggest certain of the more important problems which schools intent on improving their curricula must face.

The patterns of the secondary school's program are not in harmony with its essential purposes. The common need of young citizens to develop intelligent insight and responsible concern regarding the broad gamut of life's affairs is scarcely suggested by the outlines of its curriculum. Even in its entirety the curricular program presents only a meager and ill-balanced sampling of the areas comprised in our contemporary culture. This defect is aggravated because the individual pupil experiences only a limited portion of the total offering and because the school's indiscriminate intermingling of technical training and factual instruction permits him to neglect entirely certain fields of instruction. The secondary school urgently needs to develop curricula so organized as to represent with breadth and balance the cultural areas with which the citizen must have intelligent concern, and so administered as to make these areas of insight the fruitful and satisfying possessions of all youth.

Furthermore, the secondary school has much to answer for in its persistent tendency to deal with important fields of knowledge as if verbalistic and bookish formalities were the only acceptable modes of approach to them. Observing the futility of these procedures for many pupils it has labeled young people "non-academic," and has sought to shunt them off into various sorts of manual or practical training. Technical training has its place, but it is not a substitute for the development of understandings and appreciations which are essential to citizenship. The school needs not only to establish curricula in which are reflected the vital concerns of the world today, but also to introduce the varied means, the instructional materials, facilities, and practices, whereby all young people may find these curricula meaningful and interesting.

Over and beyond the urgent need for common curricula intended to produce essential civic insights and appreciations, there is need for improvement in opportunities for the development of pupils' aptitudes for technical skill or proficiency of various sorts. Because of the marked difference between insight and skill, both with respect to the psychological aspects of their development and the nature of their

utility, the school may well be more discriminating than it has been in distinguishing clearly between them. Technical training should be organized and administered as an addition or supplement to instruction in basic fields of insight and not as a substitute or alternative to such instruction. Also, technical training should be administered discriminately, so that only those pupils who are reasonably well qualified for it and in need of it will get it. It should be administered flexibly and informally as well, so that its progress and amount will be easily adaptable to the individual participant. If these general principles are accepted, it follows as a practical corollary that there should be much more diversity in the kinds of practical training offered than most secondary schools now provide. It is fantastic to suppose that the young people of a community are getting adequate or suitable opportunity for the development of specialized abilities when their school offers courses in two or three foreign languages, mathematics, woodworking, typewriting, cooking, sewing, drawing, and instrumental music. Even if the list of such opportunities is doubled the situation is not greatly improved, especially if practically identical offerings are repeated year after year. There is urgent need for innovation and creative experimentation both in the kinds of specialized training offered and in its organization and administration.

It is all too apparent that the program of the secondary school could be greatly improved and that thorough-going reorganization is needed. Our recent emphasis on the development of specialized and complicated techniques for curriculum construction, our proposals for schematic rearrangements of teaching procedure, and our newer interpretations of the products and processes of education have not had very satisfactory effect in improving the educational program. However, the mere fact that they have been so commonly advocated suggests that there is little promise in discarding them, and that we must find ways of capitalizing them more effectively. If they are in fact to be capitalized effectively, some such questions as the following must be convincingly answered:

1. *How can we make better use of the procedures which have been developed and advocated by specialists in curriculum construction?* One difficulty arises from the fact that we have neglected the possibility of using these procedures in an attempt to reorganize the general scope and outline of the curriculum as a whole. School administrators, who are responsible

for general oversight of the program in its entirety, have much to answer for here. They have usually farmed out the task to persons representing special interests, who have very naturally limited themselves to making piecemeal adjustments in their own fields and to expansions of their own fields, if they could make them. Although the administrator cannot and need not do the job himself, he has a very great opportunity to see to it that the members of the school staff jointly undertake to assume definite and continuing responsibility for the reorganization of the program in its entirety. A further difficulty arises from the fact that specialists in curriculum construction frequently advocate procedures which are so specialized or so complicated that those who undertake the kind of piecemeal revision which is now customary become deeply involved in technical paraphernalia and turn out results that do not justify the effort. In any case, individual secondary schools working independently cannot do as well as could more inclusive agencies, but they could do much if they would.

2. *How can the secondary school suitably modify and reorganize its methods of teaching?* Mere rearrangement of the more or less traditional activities of young scholars at work on narrowly academic subjects is at best a meager and unfruitful palliative. It is futile to assume that many of the young people in school are scholars or will ever become scholars, or that those who will and should become scholars will be nothing more than scholars. Pedantry reshuffled will still be pedantry. It is therefore imperative that the methods to be developed take into account more broadly the inappropriateness of so much reliance on traditional academic ceremonies and the necessity of providing types of activity which will be vital experiences for young citizens. In any case, the development of more effective and suitable methods is dependent upon broader conceptions of the nature of educational experiences and objectives.
3. *How can the secondary school develop broader conceptions of educational experience and educational outcomes?* Perhaps the answer to this question will be found to be simple in essence but very difficult in application. The school which wishes to broaden its conceptions will have to broaden its vision. If it habitually looks upon its task as the business of teaching certain more or less academic subjects, its conceptions will be correspondingly narrow. If it is less willing to assume that the mere teaching of these subjects is no end in itself and that merely to teach certain subjects is no insurance that all sorts of unpremeditated benefits will accrue to young people and to society, and if it gives much consideration to the kinds of changes which it should produce in its pupils, its conceptions will necessarily be greatly broadened. All too commonly when we have considered the broader benefits which are supposedly the results of secondary education we have done so not for the purpose of seeing how we should change our practice, but for the

purpose of trumping up a good case for persisting in it. If, sincerely hoping to find fruitful ways of modifying our methods, we consider primarily the insights, interests, and abilities which young people need to develop, we may expect to broaden our conceptions of profitable educational experiences for those young people.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Make a detailed analysis of the program of studies in a secondary school, indicating which courses are chiefly concerned with the production of technical abilities and which are primarily devoted to the development of understanding.
2. Draw up a rather complete outline of the general topics which might well be included in a secondary-school curriculum intended to give the pupil a comprehensive introduction to one of the following fields of knowledge:
 - a. Natural Science
 - b. Social Studies
 - c. The Arts
 - d. Humanities
3. Analyze the individual programs of studies of a number of pupils who are now completing their secondary education, considering particularly the extent to which different fields of fact have been emphasized or omitted.
4. Conduct a survey of the opinion of adult laymen in order to discover what subjects they would prefer to have in the secondary-school program of studies.
5. Specify as definitely as possible the technical abilities or skills which the school should develop as minimum essentials for the prospective citizen.
6. Make inquiry of a considerable number of secondary-school teachers concerning the value of the content of subjects other than those which they themselves teach. Which subjects have the strong approval of the majority of teachers?
7. Investigate and evaluate regulations concerning prescription and election of subjects in several secondary schools.
8. How does elimination of pupils from school and the grade placement of certain subjects produce important educational problems? How may these difficulties be remedied?
9. Show how the general pattern of a given school's program of studies is or is not related to the major principles of democracy.
10. Assuming that Bobbitt's classification of the major fields of human concern (contained in his *Curriculum Investigations*) is a reasonably valid indication of the areas of knowledge which the educated laymen should

know about, analyze the major topics covered in the various courses offered in a secondary school in order to discover to what extent and with what emphases the topics in Bobbitt's classification are included. In view of the fact that an individual pupil is not ordinarily expected to enroll for all the courses offered in a high school, classify the topics included in each of the school's special curricula, so as to show the influence of a pupil's choice of curricula upon the nature and scope of the fields of human concern in which he will have instruction.

11. There are in almost every school some teachers whose conceptions of the learning process are inadequate and whose teaching procedures are either ineffective or productive of undesirable outcomes. Work out a plan for stimulating and helping the teachers in a given secondary school to develop more satisfactory conceptions of the educative process and improved methods of teaching. Such a project is really an educational job and the plan itself should exemplify the essentials of an adequate conception of the educative process.
12. Taking into account the fact that the staff of a secondary school is unable to undertake competently to use the highly complicated organization of procedures which is advocated by experts in curriculum construction, and recognizing also the fact that the curricula in most secondary schools are changed only by piecemeal efforts within particular departments of instruction, try to work out a plan whereby the staff as a whole will share jointly the responsibility of working out changes in the total curricular program. Note that such a plan of procedure is likely to be most effective if it operates on a permanent basis.

SOME MATERIALS USEFUL FOR THE FURTHER STUDY OF CURRICULUM REORGANIZATION

Although the need for curriculum reorganization has been widely recognized for a good many years, there has not yet been developed any substantial body of literature which deals with curriculum revision directly and in such a way as to be interesting and illuminating for most persons interested in secondary education. This is a natural consequence of the fact that the curriculum as a going enterprise in the schools is directly in the hands of persons almost none of whom have any responsibility for the development of the program as a whole. It results also from the tendency of persons who become specialists in curriculum development to concern themselves chiefly with the development of highly specialized and complicated techniques to be applied to the revision of the details of particular curricular subjects.

The analysis and critical evaluation of the high-school curriculum by Counts is an informative and suggestive consideration of the curricular program in its entirety. Although some years have passed since its publication, much of what it contains is still valid. The two textbooks by Cox and the

books by Davis and Uhl are easily readable general considerations of secondary-school curricular programs. The National Survey report by Loomis and others is somewhat more difficult to read, but is very informative with respect to trends in the schools of the entire country.

The student who wants a very brief summary of trends in the reorganization of secondary-school curricula will find it in the bulletin by Monroe and Herriott, which, although it is now somewhat out of date, presents much information in small compass.

The most thorough analysis of the varied and complex techniques advocated and attempted in curriculum construction is presented in the book by Caswell and Campbell. It must be read carefully if it is to be very fully understood. The use of the supplementary volume of "readings" will add considerably to its interest and meaning.

Bobbitt's *How to Make a Curriculum* and Harap's *Economic Life and the Curriculum* will also be interesting and profitable for the general reader.

Most of the other studies listed below are more or less specialized, and their titles are in most cases indicative of their character. Trillingham's study is not concerned with the organization and administration of curricula in schools. It analyzes the administrative aspects of organized procedure in the work of curriculum revision.

Associated Principals of the High Schools and Academies of the State of New York. Committee on Secondary School Problems. *Constants in the Secondary School*. Geneva, New York: Council of School Superintendents, 1933. 29 p.

Bobbitt, Franklin: *Curriculum Making in Los Angeles*. Supplementary Educational Monographs, no. 20. Chicago: University of Chicago Press, 1922. 106 p.

——: *How to Make a Curriculum*. Boston: Houghton Mifflin Co., 1924. 292 p.

Bobbitt, Franklin, and others: *Curriculum Investigations*. Supplementary Educational Monographs, no. 31. Chicago: University of Chicago Press, 1926. 204 p.

Brewer, John Marks. *Education as Guidance: An Examination of the Possibilities of a Curriculum in Terms of Life Activities, in Elementary and Secondary School and College*. New York: The Macmillan Co., 1932. 668 p.

Broady, Knute O., Platt, Earl T., and Bell, Millard D.: *Practical Procedures for Enriching the Curriculum of Small Schools* (Educational Monographs, no. 2. University of Nebraska Publication, no. 84.) Lincoln, Nebraska: Extension Division, University of Nebraska, 1931. 88 p.

Caswell, Hollis L., and Campbell, Doak S.: *Curriculum Development*. New York: American Book Co., 1935. 600 p.

- Caswell, Hollis L., and Campbell, Doak S.: *Readings in Curriculum Development*. New York: American Book Co., 1937. 753 p.
- Charters, W. W.: *Curriculum Construction*. New York: The Macmillan Co., 1924. 352 p.
- Counts, George S.: *The Senior High School Curriculum*. Supplementary Educational Monographs, no. 29. Chicago: University of Chicago Press, 1926. 160 p.
- Cox, Philip W. L.: *Curriculum Adjustment in the Secondary School*. Philadelphia. J. B. Lippincott Co., 1925. 306 p.
- : *The Junior High School and Its Curriculum*. New York: Charles Scribner's Sons, 1929. 474 p.
- Coxe, Warren W., and others: *Courses of Study and Curriculum Offerings in Junior High Schools in New York State*. Albany: The University of the State of New York, 1931. 330 p.
- Davis, C. O.: *Our Evolving High School Curriculum*. Yonkers: World Book Co., 1927. 301 p.
- Department of Rural Education, National Education Association: *Economical Enrichment of the Small Secondary-School Curriculum*, 1934. 94 p.
- Harap, Henry: *Economic Life and the Curriculum*. New York: The Macmillan Co., 1927. 188 p.
- : "The Literature of Curriculum Making: A Selected and Annotated Bibliography," chap. XXXI of "The Foundations and Technique of Curriculum-Construction," *Twenty-Sixth Yearbook* of the National Society for the Study of Education, part I. Bloomington, Ill.: Public School Publishing Co., 1927, pp. 449-75.
- Hopkins, L. Thomas: *Curriculum Principles and Practices*. Chicago: B. H. Sanborn, 1929. 617 p.
- Jones, Walter B.: *Job Analysis and Curriculum Construction in the Metal Trades Industry*. (Contributions to Education, no. 227.) New York: Teachers College, Columbia University, 1926. 93 p.
- Loomis, A. K., and others: *The Program of Studies*. U.S. Office of Education Bulletin, 1932, no. 17. National Survey of Secondary Education, Monograph no. 19.
- Monroe, Walter S., and Herriott, M. E.: *Reconstruction of the Secondary School Curriculum: Its Meaning and Trends*. University of Illinois Bulletin, vol. XXV, no. 42. Educational Research Bulletin, no. 41. Urbana: University of Illinois, 1928. 120 p.
- Phillips, Evelyn Butler: *An Analysis of the Curricula of the Small High Schools of Maine*. University of Maine Studies, Second Series, no. 23. Orono. The University Press, 1932. 89 p.
- Research Division of the National Education Association: "Creating a Curriculum for Adolescent Youth," *Research Bulletin*, 6:20-53 (January, 1928).

- Research Division of the National Education Association: "Vitalizing the High School Curriculum," *Research Bulletin*, 7:176-275 (September, 1929).
- Roberts, Edward S., and others: "Curriculums Found in American Secondary Schools," chap. III of "The Development of the High School Curriculum," *Sixth Yearbook* of the Department of Superintendence of the National Education Association, 1928, pp. 59-82.
- Saam, Theodore, and others: "Curriculum Problems in the Small High School," chap. IV of "The Development of the High School Curriculum," *Sixth Yearbook* of the Department of Superintendence of the National Education Association, 1928, pp. 83-121.
- Snedden, David S.: *Foundations of Curricula*. New York: Teachers College, Columbia University, 1927. 196 p.
- Threlkeld, A. L., and others: "The Appropriateness of High School Courses for Pupils Not Going On to College," chap. V of "The Development of the High School Curriculum," *Sixth Yearbook* of the Department of Superintendence of the National Education Association, 1928, pp. 122-38.
- Trillingham, Clinton: *Organization and Administration of Curriculum Programs*. (Southern California Educational Monographs, 1933-1934 Series, no. 4.) Los Angeles: University of Southern California Press, 1934. 199 p.
- Uhl, Willis L.: *Secondary School Curricula*. New York: The Macmillan Co., 1927. 582 p.
- Virginia Committee for Research in Secondary Education: "The Virginia High School Curriculum," *University of Virginia Record*, Extension Series, vol. XVII, no. 4. Secondary Education in Virginia, no. 16. Charlottesville: University of Virginia, 1932. 97 p.
- Webb, L. W., and others: *High School Curriculum Reorganization*. Ann Arbor, Michigan: North Central Association of Colleges and Secondary Schools, 1933. 396 p.
- Williams, L. A.: *The Making of High School Curricula*. Boston: Ginn & Co., 1928. 233 p.

PART IV

AN IMPROVED SECONDARY SCHOOL

CRITICAL analysis of the theory and practice of the secondary school is an interesting and potentially profitable enterprise. From a professional standpoint, however, the value of such analysis is merely potential. If it is to be capitalized in the improvement of the secondary school, it must directly suggest or be translated into constructive proposals. For this reason it seems desirable to supplement the foregoing analysis by presenting in relatively concrete and illustrative terms some of its practical implications. This will be done by describing an improved school as if the school were already in actual operation.

The school which is here to be described does not now anywhere exist in its entirety. It is presented as a discriminating synthesis of certain apparently successful practices in existing schools and in other institutions and agencies which have educational functions. The particulars of this school's practice are consequently not markedly novel. Their differences from conventional practice inhere chiefly in the general patterns in which they are organized in a coherent program.

The reader who feels the need of clearer understanding of the realizable potentialities of the secondary school will doubtless find it helpful to trace the relationships between various phases of the preceding critical analysis and their practical corollaries. The reader who has not only arrived at an adequate critical evaluation of the practice and rationale of the conventional secondary school, but has also formulated definitely the directions in which he believes secondary education should develop may find it both interesting and helpful to examine the program which is here outlined. In either case, he should bear in mind that the school which is here described is assumed merely to be an improved secondary school. It is not utopian, or so far removed from present realities as to have no practical import for schools today. It is not even ideal, in the sense that it is presumed to be superior to others which could be developed. It is presented rather as a reasonable possibility of eliminating some of the secondary school's weaknesses and conserving its strengths.

The reader will find it profitable to compare the school which is here to be described with other schools which he knows are attempting to

make fruitful departures from conventional practice. In fact he may wish to formulate his own plans for an improved school, and compare them with the plans for this school. He will also do well to consider in this connection the more or less concrete proposals of other persons who have sought to envisage rather definitely the directions in which the secondary school should develop. Wrinkle describes briefly the innovations which one secondary school has been making recently. Snedden describes for the future a high school which is the embodiment of some of his doctrines, and Everett and Kilpatrick suggest somewhat less concretely some possibilities for fundamental changes in the school program in its entirety.

Books Which Describe New Secondary-School Programs

Everett, Samuel (Editor): *A Challenge to Secondary Education*. New York: D. Appleton-Century Co., 1935 353 p.

Kilpatrick, William H.: *Remaking the Curriculum*. New York: Newson & Co., 1936. 128 p.

Snedden, David: *American High Schools and Vocational Schools in 1960*. New York: Teachers College, Columbia University, 1931. 122 p.

Wrinkle, William L.: *The New High School in the Making* New York: American Book Co., 1938 318 p

AN IMPROVED SCHOOL

ITS PURPOSES

A NOTABLE characteristic of the improved high school is its attention to its purposes. There is plentiful evidence in manifold phases of the life and work of the school that teachers and pupils are fully aware of these purposes. It is apparent, indeed, that these purposes are not merely known and accepted by most of the persons in the school; they are really the basis or foundation upon which the activities and the achievements of the school rest. Anyone who has given much thought to the conventional statements of "aims" or "objectives" of secondary education should perhaps be forgiven if he knowingly tries to avoid an extended discussion of them and to find out instead what the school is actually attempting to do and how it is trying to do it. But the principal insists that the only way to understand what the school is doing, why it does it in this particular way, and why it does not do some of the things which schools frequently do, is to have a fairly clear understanding of what the school has adopted as its purposes.

Statement of purposes. Apparently the principal believes that these purposes should be known and shared by everyone who participates in the school as teacher, parent, pupil, or interested layman, for he makes available to all interested inquirers this official statement of the purposes of the school:

What is this school here for? This public school, supported by public money and supervised by public officials, exists for the benefit of the public generally. Although its services are given directly to young people particularly and although its services to them are given discriminatingly (giving to some more than to others and giving different kinds of service to different persons) all that it does is intended to promote the general welfare.

What are the school's special services to the general welfare? The school is but one of many agencies contributing to the general welfare. Each of these agencies is peculiarly fitted to perform a special service. The school is by tradition and experience best suited to the development of knowledge and understanding and to the discovery and development of

ability and talent — particularly ability or talent in relation to knowledge and its uses. Because of the increased proportions of youth in attendance in secondary school, it may be economical of time and money to provide in connection with the school certain other social services to youth. (In our own community, which is somewhat lacking in adequate health service both for youth and adults, it appears to be economical to administer health service to school boys and girls at the school building and in connection with their school attendance. It should be recognized, however, that in this instance the school officials, desiring to promote worthy community services, have undertaken this health service as such — not as a natural element in educational service. It should be recognized also that there are elements of danger in any attempt on the part of a school to undertake to perform services which may be valuable but which are not primarily educational. In the first place, as in this instance, there is the possibility that when the school undertakes to provide a needed service for the young people of a community it uses a part of the resources which would be needed to provide that service for all members of the community, and thus, even though it provides for youth a service which may be lacking for all, it prevents or forestalls the development of adequate service to the whole community through special agencies best suited to offer such service. In the second place, there is always the possibility that some service which is obsolete in that it lacks sufficient value to be maintained except by adoption into the program of the school will seek to maintain itself in this manner. The schools have enough difficulty in knowing what to do with their own obsolete practices to make them hesitate to adopt some new service which is commended on the grounds that it is no longer adequately supported by its traditional sponsors.)

What is the chief goal or product of the school's efforts? The school's major task is to increase the pupils' understanding of the natural and social world in which they live and of themselves as interested and responsible members of it. Increased insight and appreciation are the direct outcomes which we seek to produce. We believe in the effectiveness of vital knowledge as a means to more intelligent and successful living and as an enrichment of the personal satisfactions of the individual.

It must, however, be recognized that the insights and appreciations which the school seeks to develop can be made vital and useful only as they begin to influence the activities of boys and girls in their everyday lives. If what a boy knows is indicated only in his formal school work, it is clear that the purpose of the school is not being achieved successfully. This implies that in some instances the school's work will be hindered if conditions in the pupil's home do not encourage or at least permit him to utilize in his everyday life the insights, interests, and abilities which the school is attempting to develop. It means also that

the school expects to be judged not merely by what it does for pupils in school or by what they do in school, but also by what they do in their everyday living outside the school.

What knowledge is of most worth? Obviously the school need not and cannot give the pupil an understanding of all knowledge. Much knowledge is available naturally from other sources, so that the school should add to the pupil's present understandings. And the available knowledge far exceeds what even the brightest pupil can master while he is in high school. Both for the bright pupil and the ordinary pupil there must be selection of the knowledge or insights to be mastered. We believe that we should select as wisely as we can the knowledge which will make the pupil more appreciative of the total environment in which he is living. The subject matter of our courses is the world and the people in it, socially and individually. It is our purpose as members of the school to understand that subject matter better, and since we realize that we cannot master all of it, we select for study those aspects of it which we shall normally encounter in living.

Does the school offer a complete preparation for living? The school attempts to offer preparation for complete living, but it cannot and does not attempt to provide a complete preparation for living. In its major task of promoting understanding and appreciation it seeks to give at least an introduction to all phases of life. As broadly as possible it is concerned with many and varied significant aspects of the natural world, human society, the arts and techniques which are significant in our civilization, and individual human nature. We seek to develop interest and understanding of these, but we cannot adequately or economically give to every child complete competence for carrying on the manifold activities of life.

What are some of the things which are frequently expected of secondary schools and which are largely or wholly beyond the scope of this school? It is perhaps to the credit of schools that many folk seek to have the school undertake to accomplish many good things which far exceed the possibilities of a school. Some of them are mentioned here in order to discourage unwarranted expectations on the part of pupils, their parents, or interested laymen.

1. Is good character an objective of the school? The school cannot assume responsibility for the complete development of character as such. There is so much diversity of belief and practice concerning the nature of good character that it would be impossible for a public institution completely to produce character traits which would be satisfactory to various representative groups. Furthermore, character is sufficiently dynamic and all-inclusive to be incapable of complete development through any one agency unless that agency shall assume entire direction and control of the lives of individuals. Although this may be desirable in some extraordinary instances, we believe that this is more than our school can or should do.

We believe that the pupil should be made to understand and appreciate the facts, the ideals, and the activities which the term character suggests, and that such understanding is a significant and effective element in the promotion of character. As far as certain types of performance or behavior suggested in the term character are necessary and desirable in the efficient conduct of the school we shall use every means at our disposal to promote their regular performance and development. Such understanding and such behavior will, we assume, contribute greatly to the development of character.

2. Is worthy or efficient citizenship an objective of the secondary school? Surely an educational program chiefly intended to produce understanding of the manifold aspects of the natural and social environment ought to make prospective citizens more intelligent in the performance of their civic responsibilities, and we believe that the work of this school does and should contribute indirectly to the improvement of citizenship.

Inasmuch as the school itself is a social-civic group with certain inherent necessities for efficient organization, regulation, and responsible participation on the part of its members, it seems likely that the training necessary to adapt individuals to desirable civic living in the school will also contribute to worthy citizenship on the part of these persons outside of the school, both at present and in the future.

Thus the school will indirectly share in the improvement of citizenship even though it declines to accept full responsibility for the production of good citizenship generally as one of its immediate goals.

3. Is the educational program of this school intended to change the social order? We assume that change in the social order is inevitable and that some changes will be for the better, while others will be for the worse.

Naturally, we hope that, as a result of their education in this school, our pupils will contribute to the improvement of the great society to which they belong. But we have no special plan for such change. We seek neither to upset the present order nor to provide special defense for it. We seek rather to help our pupils to understand it — to appreciate its merits and its faults, its strengths and its weaknesses. We shall strive to produce in our pupils a compelling interest in it, a deep recognition of the importance of it, and an identification of personal self-interest with the general welfare of the great society. In this connection our chief concern is to make our pupils as intelligent as possible concerning their social environment and to stimulate the application of that intelligence to the maintenance and improvement of the general welfare. We believe that any real contribution which we can make in this direction is inherently superior to any possible attempt on our part to formulate or predict any sort of special social or economic program for society.

4. What advantages should the individual expect to acquire through attendance in this school? We should like to make very clear the posi-

tion of the school with reference to certain matters related to this general question. In the first place, it is not the primary purpose of this school to contribute to the individual advantage of anyone, except as his individual advantage is beneficial to others. Many people think of a high-school education as a means of "getting ahead." In one sense this is desirable. It is hoped that as a result of education we shall all be further ahead than we would have been without it. In the long run this school will have been a poor investment of time and money if it does not make it easier for people generally to be better off than they would otherwise have been. But "getting ahead" often means the desire of an individual to get into a position in which he has certain advantages over his fellows and various privileges which they do not have. We have no objection to the possession of unusual privileges or advantages on the part of those who are able and disposed to contribute much to the welfare of others. Actually we shall try to see to it that those who can and will undertake to promote the well-being of others shall have appropriate advantages and privileges. But we believe it is not our function as a public institution to lend assistance to those who are chiefly interested in getting for themselves superior economic or social positions. Perhaps it should be understood also that, regardless of its merits, this ambition is no longer as easy of attainment as it used to be. When few persons went to high school, a high-school education almost automatically gave them social prestige and privilege. Now that all sorts of persons attend high school, prestige can come only through unusual achievement. It should be understood also that it is questionable whether a high-school education gives one any very sure economic advantage. Undoubtedly it offers opportunities for personal development which in some instances may aid greatly in getting a living, but there is some evidence to indicate that normally a high-school education should not be expected to add very much to one's income.

Undoubtedly there are some who will not agree with these beliefs, and there are probably some who if they do agree will ask some such question as this: If a high-school education is not intended chiefly to give personal advantages to individuals and if it is doubtful whether it will serve to give most of them social prestige or economic advantage, then what in the world is it for?

An adequate answer to this question would require a long and somewhat involved discussion, but possibly it can be answered briefly in this way. It has already been said that the school is a public institution supported and directed to provide benefits to the public generally. It is commonly believed that the diffusion of knowledge, the increase of enlightenment among people generally, is beneficial in promoting the common good. Normally such a process results in advantages and satisfactions to individuals, and this is desirable. It is both natural and fortunate that the enlightenment which is so necessary to the maintenance

and advancement of our civilization usually contributes much that can be capitalized by the individual for his own satisfaction. But these individual satisfactions, although they are highly significant, are really incidental. Regardless of the individual's present interests and regardless of his inclination to profit personally from his education, it is very necessary that he shall be informed and that his interest shall be stimulated concerning matters which are essential to the preservation and progress of our civilization. In this transcendent sense a high-school education is provided not as a privilege to be bestowed, although it usually confers benefits to the educated, not as a reward to be earned, although it provides rewards for those who are able to earn them. It is provided rather to produce among people generally such increase of understanding, such concern for the welfare of individuals and of the great society, as will conserve the progress already made and support progress in the future.

5. How broad is the school's responsibility for the general welfare of its boys and girls? The school has found it difficult to answer this question. It must know as much as possible about its pupils' lives, not only while they attend the school, but before they come to it and after they leave it. It knows that some of its pupils are in need of many different things. Some need more attention and supervision at home; others seem to need less than they now get. Some are subject to unfavorable influences outside their homes. Some have too many worrisome burdens; others have so few responsibilities that they tend to become neglectful loafers. Seeing these things the school is often tempted to try to provide remedies for them, and some persons believe that it should do so, seeking to be all things to all men. Other persons urge the school to "mind its own business" and not to infringe upon the functions of the home and of other institutions and agencies.

For the present at least, the school can subscribe to neither of these views. It takes a more moderate course. It tries to give conscientious attention to the welfare of its pupils. Whenever it discerns a need for help to any boy or girl, the school will seek to bring that need to the attention of parents, or other persons who are or should be able to supply the needed assistance. The school has no desire to neglect the needs of its pupils, whatever they may be. But it should not do anything to infringe upon or to diminish the contributions which the home and other institutions should make for the general welfare of young people.

A BRIEF OUTLINE OF THE EDUCATIONAL PROGRAM OF THE SCHOOL

One of the distinctive characteristics of this high school, as contrasted with many contemporary high schools, is strong emphasis upon unity of purpose and harmony and consistency in all its activities. The

entire program has been developed as a balanced and organically related whole, so that the significance and the justification of any part of it are best understood by having in mind the complete picture of the entire gamut of activities of the school. This suggests that the best way to understand and evaluate the educational program is to read the entire description of it, attempting as far as possible to maintain a healthy skepticism concerning the various elements of the program until the whole program has been discovered.

Possibly it will be helpful to the reader to consider briefly and somewhat sketchily a general outline of the whole matter.

The program of basic constants. In the first place, the school assumes that there are some things which everybody ought to understand and become interested in, whether he wishes to or not. This means practically that the school will provide certain courses to be taken by all students, irrespective of their abilities, present interests or ambitions in life. These courses in their entirety are called "the curriculum of basic constants." The effective presentation of these basic courses represents the major task of the school.

The program of specialized electives. In addition to this offering of basic courses provided for all pupils, the school finds it possible to offer numerous and varied opportunities for special training, administered flexibly and for the most part on an individualized basis. The school, as such, does not require pupils to undertake any of this additional work, although a majority of the pupils are at work in one or more of the "specialized electives" during the greater part of the school year. These courses differ markedly from the "basic constants" in many ways, but the most significant difference is that the "basic constants" represent the background of knowledge and insight which everyone should have as an intelligent citizen or layman, while the "specialized electives" are intended to provide for the development of special interests which are personal and individual, and for the production of kinds and degrees of technical ability or knowledge which are very appropriate for certain persons but unnecessary or undesirable for the majority.

Omission of some of the activities of the conventional secondary school. Many of the special adjuncts to conventional secondary schools are missing from this school. For example, the school sponsors no regular program of "extra-curriculum activities." It has no regular

program of athletic activities, either inter-scholastic or intra-mural. It does not even have any physical education in the conventional sense, although it does provide a definite program of health service undertaken temporarily as a necessary element in community service.

Although the school is developing definite and fairly rigid performance standards, and although it seeks to develop among its superior pupils much higher standards of achievement than are prevalent in secondary schools generally, it makes little use of failure of pupils or the repetition of courses as parts of the educative process. Under exceptional circumstances a pupil is permitted to repeat a course, but the school never requires this of any student.

Marked adaptation to individual differences in pupils. With the possible exception of its wholehearted emphasis upon its primary objective, the development of essential insights, probably the most significant phase of the program of this school is the conception of the significance of individual differences in pupils and the practical arrangement by which the school adapts its educational program to the limitations and the potentialities inherent in these differences. The complete program of the school represents the strong conviction that the school is obligated both to adjust its instruction to the limitations of the relatively dull pupil and to stimulate and capitalize the fullest possible development of a high level of achievement on the part of the superior pupil. To this end pupils are carefully classified into different groups for instruction in the "curriculum of basic constants." Although all groups are given the same basic course, the actual details of content and instructional procedure differ markedly in the several group levels. This classification of pupils into high, middle, and low groups is necessary for effective instruction in the basic curriculum, but its effects do not end there. In order to be recognized as an honor pupil a youngster must be superior not merely in his academic achievement. He must be superior also in his participation and influence in the social and civic life of the school. The "specialized electives" are sufficiently numerous and varied and are administered so informally as to make it very easy to provide with reasonable adequacy for individual differences in interest, ability, and need. However, it should perhaps be emphasized that the school is much more concerned with its obligation to provide an education serving relatively objective social demands than with ministering to the personal inclinations and

subjective preferences of individuals. It seeks to do both things. It seeks to produce interests in common concerning the social environment of all of us and to offer opportunities for the development of peculiarly individual interests. In so doing it must inevitably extend and accentuate differences in ability and performance standards.

Unanimity and responsibility for the program. The school takes positive steps to insure the development of a program which is definitely in harmony with its purposes. The mere unanimity with which members of the staff accept the major purposes of the school, and their continual effort to make pupils, parents, and laymen in general aware of these purposes promote this development. But the school does more than this. It assumes that the program as a whole is to be determined by the entire instructional staff of the school. As a matter of regular practice nothing is included in the program of basic constants which is not positively advocated in advance by a majority of the teachers. Although less rigorous standards are applied to innovations in the program of specialized electives, because it seems desirable here to encourage freedom for experimentation, no part of the elective program is retained after trial unless it also receives the approval of a substantial majority of all the teachers. This departure from the traditional practice of allowing the partisans of particular subjects both to determine their own objectives and to determine the content of their own courses, if not indeed to expand their offerings in competition with other partisans, has produced some unexpected benefits. It has eliminated much of the dubious and devious rationalizing commonly used by academic partisans to excuse themselves for doing what their colleagues can see little sense in doing. It has stimulated among teachers a zeal and zest which are not so frequently found among teachers in most secondary schools. Important as these incidental benefits are, they are not so important as the intrinsic advantage of offering a program supported by the convictions and advocacy of the whole instructional staff of the school.

It need not be inferred that there is a corresponding advocacy of the specific program of educational activities now employed in the school, or for any specific program as a permanent goal. On the contrary, there is general belief in the necessity for continual readjustment of the materials and the activities now in use. This experimental attitude is reflected in the great variety of instructional procedures used in the

school. Subsequent description of these procedures will reveal the fact that this school has not limited itself to the kinds of activities which are conventionally employed in schools. It has drawn freely upon the well-tried methods employed in the church, the theater, the library, the press and other institutions and agencies whose task it is to communicate ideas and ideals to large numbers of people. Briefly, purpose and function are very definite, specialized, and limited, but educational procedure in the school as a whole is variable, eclectic, and broadly inclusive.

THE CURRICULUM OF BASIC CONSTANTS

Purpose of the basic constants. The school's primary responsibility for the effective production of understanding and insight is represented in the basic curriculum. This curriculum includes the knowledge which is desirable as the possession of all persons. Arrangement is made whereby the degree and quality of insight produced depend upon the ability and achievement of individual pupils, but the general pattern of subjects is common to all pupils. It represents a balanced ration for all pupils.

This basic curriculum produces general or liberal education. Transcending special personal interest, vocation, sex, social rank, economic status, physical and mental ability, and the thousand and one other factors which make people individually different, it represents as adequately as possible the common culture of us all. It serves at least as an introduction to all that is implied in the terms, modern life, contemporary civilization, or the world in which we live.

Four divisions of the program of basic constants. For practical reasons this basic curriculum is organized into four major divisions: Natural Science, Social Studies, Humanities, and Arts and Techniques. In their entirety these four divisions comprise a balanced and unified pattern, and each division of the curriculum is concerned with a well-defined field. Natural Science is concerned with the nature of the physical or material aspects of the natural world, including man as a physical organism. The Social Studies deal with social phenomena, the activities, the achievements, the problems of social groups. The division known as Humanities has reference to the nature of men as persons, being concerned with human nature—the psychological, spiritual, aesthetic characteristics of individuals. The field of Arts and Techniques includes a representative sampling of the manifold and numerous methods and devices which men have developed for the

economical production of things and services and which are significant elements in our civilization.

Each of these major divisions is composed of a continuous sequence of courses or subjects, which in their entirety are intended to be comprehensive and balanced representations of a broad field of knowledge. These sequences are stable, and all pupils study the same subjects in the same order as they proceed from grade to grade in their progress from high-school entrance to graduation.

Harmonious organization of courses. As far as possible, the types of course content, the methods of organizing details of subject matter in the various subjects and in the four major divisions are uniform. The primary reason for this is to make the handling of facts as economical as possible for the pupil. He is thus permitted to employ in his study of each of the four subjects taken concurrently, the same types of study procedure, and to develop his abilities gradually and consistently as he progresses through school. It is believed that this is a distinct advance over the conditions in the conventional school. No longer is it necessary for a student beginning to study a new subject to acquire arbitrarily new methods of approach and treatment. In general the only differences between the study of one subject and the study of another are the differences inherent in the subject matter studied.

In all subjects in the four major divisions of the basic curriculum the subject matter is selected solely for the purpose of producing understanding, appreciation, and interest. The facts of the subject are presented to the pupil as directly as possible. In other words, little is included which is primarily instrumental. This applies particularly to the instrumental tools or skills which are sometimes an important element in some school subjects. For example, it is customary in some schools to require the study of algebra not as an end in itself, but as a means to the appreciation of quantitative relationships among various facts in other subjects, or to justify the study of the French language as a means to the better understanding of France and French culture. Such devious and roundabout procedures have no place in the basic curriculum of this school. If it is necessary to produce understanding of quantitative relationships or of France and French culture this is done directly, using whatever media are most effective. In this case, for example, it is assumed that the English language is better understood by most pupils than the language of algebra or the French

language, even after the pupils may have studied these languages for a year or more. It is freely admitted that there are some facts which are so abstract or so subtle that they cannot be fully mastered by the person who does not have command of French or of the language of algebra, but common-sense educational economy seems to demand that such facts should be excluded from the basic curriculum which is administered to all pupils.

Performance abilities required. There are, however, some important exceptions to this general principle of excluding instrumental training from the basic curriculum. There are certain performance abilities which are instrumental in the sense that they facilitate the acquisition and use of ideas immediately and in all subjects in the basic curriculum. It is a fundamental principle in this school to foster the development of a few performance abilities which facilitate effective learning in all subjects in the basic curriculum. It is believed that certain abilities in oral expression, written expression, and reading are generally useful in these subjects. Accordingly it is the responsibility of all teachers of basic subjects to develop in all pupils increasing competence in speaking, reading, and writing. This is done without special instruction in these matters in any of the basic subjects. It is accomplished by setting up definite and very specific minimum performance standards for students in different groups and at the various grade levels. These standards increase in scope and difficulty as the pupils advance from year to year. The specific performance standards are made known to the pupils, and it is understood that the pupils must conform to them in doing their work in the four basic subjects. The teachers of these subjects are all thoroughly familiar with these requirements. It is their responsibility to see to it that their pupils regularly meet these minimum performance standards. Whenever a pupil is found to be deficient in his performance in reading, writing, or speaking, his weakness is specifically made known to him. Sometimes this is sufficient to cause improvement in his work, since the requirements are increased only gradually from year to year and since the pupil's work in all subjects gives him continual practice in perfecting his abilities. In individual cases in which the pupil seems to require special training he goes or is sent to a faculty member who is a specialist in the diagnosis and remedial treatment of the weaknesses which he has. He receives remedial training until he has developed the needed proficiency.

Minimum requirements in the three achievement groups. Since the school divides its pupils into three achievement groups, all of which study the same basic courses, the minimum requirements in reading, writing, and speaking are adapted to the potentialities of these groups. In general, the requirements for the low group are simple and few. Little is demanded of them in ability to write, partly because instructional procedure for them is more effectively administered without much writing on their part and partly because it is obvious that they will have even less occasion to express themselves in writing outside of school than they have in school. As compared with the high achievement group the pupils in the low achievement group are not required to be very proficient in reading. The school finds it possible to instruct them economically without much recourse to reading in school, and, as in the case of writing, it is apparent that they will have relatively little need for ability to read outside of school. The requirements with reference to oral expression are somewhat more rigorous than in reading and written expression. In their oral expression pupils in the low achievement groups are required to develop pleasing vocal tones for conversational purposes and reasonably good enunciation.

In the high achievement groups the standards of proficiency in these instrumental abilities are relatively rigorous. Particularly in the upper grade levels, the pupils must develop excellent proficiency in reading rapidly and intelligently. Their written expression must be flawless as to form and mechanical conventions. Their powers of oral expression must be highly developed in a variety of ways. For example, they are expected to be proficient public speakers; their interpretive skill in oral reading must be superior; and they must be excellent in their intonation, enunciation, and pronunciation in ordinary conversation.

The development of these performance abilities is recognized by teachers and pupils as a necessary and integral part of the work in the basic curriculum. It is generally understood also that this development is to take place through the normal instructional or learning activities in all basic subjects and that special instruction or training is to be administered only to individual pupils whose weaknesses are extraordinary.

CLASSIFICATION OF PUPILS FOR INSTRUCTION IN THE
BASIC CURRICULUM

The employment of a basic curriculum of required courses not only makes possible the existence of more than one level of achievement among pupils, but demands such differentiation. For purposes of instruction pupils are classified in three groups on the basis of their performance or achievement. Ideally the number of these different groups should perhaps be larger in order to simplify the teacher's task in adapting requirements and procedures to the abilities and needs of pupils. But greater refinement does not seem to be feasible at present. In the great majority of cases the resulting classifications are the same as they would ordinarily be if intelligence were the basis of grouping. Achievement is used as the basis for classification because it is just. It is also more likely to stimulate effort. When pupils enter the school they are tentatively classified on the basis of their past school records. As the groups progress through the school, individuals are reallocated in accordance with their achievement. Ordinarily, the number of such changes decreases from year to year; it is expected that while considerable numbers of pupils will shift from one group to another during the first two years, thereafter such shifts will be increasingly exceptional. Although pupils are permitted to be in different achievement groups for instruction in different subjects, they do not ordinarily change from group to group in this way. This results from the fact that the types of ability and the performance standards are so consistent that a pupil who does well in one subject is very likely to do about equally well in another.¹

¹ In the pages which follow, these three groups will usually be designated as the honor group, the middle group, and the low group. This school, like many others, has had difficulty in finding designations which would be objectively accurate and honest and which would not have any undesirable connotations. The school wishes particularly to avoid the very common practice of naming the inferior group of pupils in such a way as to suggest that it is in any way unpromising, undeserving, or incompetent. It would prefer to designate them in terms which would suggest their positive potentialities as young citizens. It has considered calling them the "civic group," but all other groups should also be civic. It now actually refers to them as the "normal group," not with the idea of giving them or anybody else the idea that they are average, but to suggest that they are the sort of ordinary human beings whom we must normally expect to have in the world and that the things which the school should require of them are the kinds of achievement and performance which the world outside the school ordinarily requires of ordinary people. For somewhat the same reasons the school now designates the middle group as the "scholarship group." Although they are about average or above average in talent, they are the kind of people with whom the conventional school has been at least temporarily successful in teaching to read, to write, and to talk.

One basic outline of course content for all three achievement groups. The courses of study and the methods of instruction for all groups are much more alike in the seventh grade than in the twelfth grade. However, the differences in pupils are believed to be relative, rather than sharply distinct. The basic core or outline of subject matter in each of the three group levels is so similar to the others that any pupil whose achievement entitles him to shift from one level to another will be able to do so without arbitrary loss of time or inconvenience.

The selection is rigorous. It is only with extraordinary ambition and expenditure of energy that the pupil of average intelligence can attain a place in the honor group, or maintain his place there after he reaches it. But the door of opportunity is democratically open to those who can and will meet the standards set up for the honor group. Aside from the regular policy of the school to ascribe honor and merit to the quality of achievement represented in the work of the honor group, there is no attempt on the part of the faculty to give privilege to ability or capacity unless it is used consistently in practical achievement. Consequently, it is possible for some to maintain a position higher than their inherited capacities would ordinarily make possible, and there are always a few who seem to have high intelligence but who remain in the lower achievement groups.

Adequacy of the courses. One of the important ingredients in the education of pupils in the school — an ingredient in which, by the way, the faculty members find much cause for satisfaction — is the adequacy with which the content of courses in the basic subjects is adapted to the abilities and the potentialities of pupils in the three different achievement levels. These adaptations are sufficient to add greatly to the enjoyment of teachers and pupils in their work. It is believed that they have also resulted in a higher level of educational achievement than would have been possible without them.

As has been said, the differences are relative. That is, they tend to involve more of some things and less of other things. They do not mean that the competent pupil does one thing and the incompetent pupil does something entirely different. And it should be remembered

somewhat as scholars do. Recognizing the fact that scholarship is neither a very low nor a very high form of human life, the school is willing to use that term to name its middle group of pupils. It calls the high group the "honor group," not because it wishes to heap honors upon them, but because they should learn to make superior contributions to the general welfare and because the rest of us should learn to respect and honor them and their contributions

also that these differences are gradually increased from year to year as the pupil advances.

Policy of enrichment. In the first place, the school is definitely committed to a general policy of enrichment rather than acceleration, which is to say that the competent and the incompetent move along or are moved along through the subject sequences in the basic curriculum during the same space of time. But the enrichment policy of this school involves a combination of elements which makes it something very different from the somewhat haphazard and casual thing that it tends often to be in conventional schools.

Actually, there are three courses in each of the major divisions of the basic curriculum. All three courses have the same outline, but they exhibit important differences in detail.

Comparison of instruction in high and low achievement groups. These differences can be briefly indicated by contrasting the characteristics of the courses for the low achievement groups with those for the high achievement groups, with the implication in each instance that the middle group courses appropriately occupy middle ground.

In general, the courses for high achievement groups are more extensive, more inclusive in scope than the courses for low achievement groups. This difference in scope is evident in several ways. Specifically, the courses for low achievement groups emphasize facts of relatively local nature, while the courses for high achievement groups include many more facts which are geographically remote. For example, low achievement groups studying municipal government are concerned chiefly with the government of their own communities and perhaps others comparatively close at hand. The high achievement groups, on the other hand, consider local government not only in communities similar or near to their own homes but also in states and countries far removed.

Another aspect of difference in scope of courses involves the time factor. Low achievement groups give attention to facts representative of the present and the relatively immediate past, while the high achievement groups pay attention as well to the relatively remote past. For example, low achievement groups studying architecture deal with the forms and uses of contemporary buildings, while the high achievement groups study in addition the historical antecedents of present architectural forms.

Difference in scope is also a matter of degree of detail. Students in low achievement groups are concerned chiefly with emphasis on relatively simple and outstanding characteristics or generalizations, while the more able students undertake much more thorough and detailed analysis of the topics in their courses. As an illustration of this, low achievement groups studying sound learn only about the general nature of the transmission of sound through atmospheric waves, while the highly competent students study in detail the various atmospheric conditions which affect the transmission of sound and the significance of various particular elements in sound waves.

For the pupils in the low achievement groups, again, there is emphasis on the practical implications of all subjects for the direct and concrete guidance of the pupil's personal life, but in the courses for superior pupils the facts are dealt with more impersonally and there is relatively little attempt to suggest specifically activities which should be directly incorporated in the individual pupil's pattern of life activities. An illustrative instance is the study of the assimilation of food. The course for low achievement pupils emphasizes and recommends specifically and concretely certain dietary practices, but the course for high achievement groups is concerned more impersonally with the nature of the physiological phenomena without much emphasis on desirable personal practice in any limited and concrete sense.

Indoctrination and problems. A further difference in the courses for different achievement levels has to do with the balance between indoctrination and completely unbiased consideration of unsettled issues or problems. Courses for relatively incompetent pupils are designed to supply the pupil with what appear to be reasonably sound and useful beliefs concerning matters with which the pupil probably lacks either enough knowledge or enough intelligence to arrive at reasonably sound and useful answers to controversial questions. On the other hand, the course for superior pupils presents without bias the controversial, the perplexing, the complexly unsettled nature of questions for which we do not have complete answers. As a specific instance, consider the treatment of matters pertaining to ethics in which are included the "Humanities." In the course for pupils in the low achievement group certain modes of behavior are definitely indicated and recommended as good and right. Other types of conduct are specifically called bad, without including mention of all or even an

adequate sampling of the particular facts which support the generalizations presented. The curriculum indicates what is to be believed, without consideration of all the why's and wherefore's. In the course for superior pupils, however, there is frank indication of conflicting facts and theories, unsettled questions, and controversial questions.

The school recognizes the possibility that its policy of indoctrinating pupils of modest talent involves certain dangers. For example, it is possible that pupils who have been indoctrinated in school will therefore be the more likely to accept further indoctrination from other propagandists whose motives are more or less selfish. It is possible also that pupils who have been indoctrinated will thus develop fixed standards and tend to resist changes recommended later by leaders whom they should more willingly follow.

With these possibilities in mind the school indoctrinates its inferior pupils with the necessity of expecting and accepting change. To these pupils the school frequently says in effect, "This is the best that we know now, and there is no available evidence to cause us to believe otherwise. However, we shall doubtless know more in the future than we know now, and we must be ready to revise our beliefs accordingly."

In order that these inferior pupils may be further encouraged both to accept new knowledge and to know where to get it the school plainly shows them how to distinguish the wise leader from the selfish or stupid propagandist and encourages them to follow the one and oppose the other.

In general, then, the courses for the superior pupils in the honor group are more complete and general than those for the relatively inferior pupils in the lower groups. Having more capacity for complete acquisition of a generous fund of information and greater potentialities for the discriminating translation of knowledge into intelligent action, the honor pupils are provided with a curriculum designed to capitalize and promote these possibilities. The pupils in the lower groups, being limited both in their capacities for acquiring knowledge and in their abilities to apply it intelligently, are given courses which emphasize the minimum essentials in terms of practical guidance of life activities. Practically adapted to the differing potentialities of the capable and the limitations of the relatively incapable, the courses in the school are designed to promote the fullest possible degree of intelligent action in the manifold aspects of living.

These differences are illustrated somewhat more fully in the next two chapters.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Compare the relative merits of the organization of the basic curriculum into the four divisions — Social Studies, Humanities, Natural Science, and Arts and Techniques — with other possible patterns of organization.
2. Some persons doubt whether parents, particularly parents whose children are classified in the lowest group, would approve of the undisguised classification of pupils which is here described. Why is it to be expected that parents would, or would not, object? What are the reasons why they should, or should not, object?
3. Consider the probability that this type of classification of pupils would produce in them undesirable attitudes toward persons classified in groups other than their own.
4. Evaluate critically the policy of classifying some industrious pupils of ordinary ability in higher achievement groups than their native intelligence would lead one to expect, and permitting intelligent but slothful pupils to remain in groups appropriate to their mediocre achievements.

THE CONTENT OF THE CURRICULUM OF BASIC CONSTANTS

THE selection and organization of the subject matter of the four major divisions of the basic curriculum constitute a difficult and lasting problem. There is general agreement that the basic curriculum is superior to the conventional program of studies formerly used, but the teachers are not content with what has been accomplished. Much of their dissatisfaction is related to detailed elements of content in particular courses. Some important problems, however, are those concerned with the general pattern or framework of the entire basic curriculum. For instructional purposes on the secondary-school level it seemed necessary to make the general outline or classification of subjects relatively simple, and to provide for unity and orderly synthesis. This was undoubtedly a reaction away from the relatively disjointed and disorderly collection of courses making up the program of studies in the conventional school and the capricious curricular programs of individual pupils.

Tentative character of the curriculum. The organization of the basic curriculum into four main divisions is the result of continual compromise and readjustment. It is possible that it will be temporary. It is certainly looked upon as tentative. In the work of developing this curriculum it has been assumed that the organization of subjects in the school may well be in harmony with the organization or classification of knowledge which has been gradually formulated and crystallized through the long history of our civilization. It is recognized that there are those who criticize this conventional classification of knowledge on the ground that it is "logical" rather than "psychological." The teachers who are at work with this curriculum believe that a classification which has been developed empirically by many generations of thinkers has some basis for being designated as psychological. They realize that in the process of instruction the teacher must adapt and adjust the arrangement of facts so as to facilitate the pupil's ready

approach to them and his competent mastery and use of them. Obviously the nature and amount of these adaptations to promote learning depend upon the present condition of the pupil — his interest, his intelligence, his prior acquaintance with the facts, and the like. Since there is great variation in these factors among groups of pupils, it is not to be expected that even the most ambitious attempt to organize a curriculum “psychologically” rather than “logically” would result in a truly psychological curriculum for each pupil. It has been assumed that the basic outline of the curriculum should capitalize as far as possible the general patterns of orderly knowledge which have been developed through long experience and which have actually become the framework of our thinking. Granting that the teaching process must provide psychological arrangement of subject matter, the authorities in this school have assumed that an orderly, logical curriculum is very necessary.

Reasons for present organization. The division of the basic curriculum into four major fields is based partly on the administrative necessities of a school — the fact that the school deals with pupils in groups and that a balanced and orderly time schedule is necessary. It represents also the belief that a relatively simple organization of subjects is desirable for instruction of those who are intellectually immature. Another consideration is its general conformity to the conventional classification of facts, which should enable the pupil subsequently to continue his intellectual pursuits without having to discard the patterns set up by the school in order to master those which the world uses. These matters have been influential in shaping the general pattern of the basic curriculum. It should, however, be frankly stated that the pattern is largely empirical. It exists not so much for its supposed intrinsic validity as for its being the most satisfactory pattern among many which have been developed.

However, it would be a mistake to assume that the classification of subjects is a matter of major importance. It is not. The authorities in the school are so much concerned about the completeness, the veracity, and the clarity with which the basic curriculum presents to the pupil the nature and significance of the world that they waste little time in worrying about the precise location of the boundaries which divide one subject from another.

Every course a history course. These four divisions of the basic

curriculum have many characteristics in common. It must be remembered that they have a common purpose. There are certain definite types of content which are included in all courses. In the first place, every course is a history course, particularly for the high achievement groups. History has been eliminated as a special subject in the basic curriculum not because it was believed to be unimportant, but because it was felt that it should occupy a larger place than it is feasible to give it as a special subject. It is intended that, excepting the personal limitations of some pupils, the pupil shall see the significance of every aspect of the contemporary world in its historical setting. Everything which merits attention in the high-school curriculum has a history. If it were so ephemeral as to lack history it would not merit inclusion in the curriculum. The school authorities resent the fact that war and politics are ordinarily taught as if they were peculiar in having a long and apparently honorable evolution, while mathematics and agriculture and most of the other conventional school subjects are ordinarily presented as if they had no connection with the past — and little connection with anything else, for that matter. Hence, the courses in each of the four basic fields of study contain considerable amounts of historical material. In accordance with the general policies governing provisions for pupil differences the curriculum for honor pupils contains much material of historical nature, while that for lower group pupils contains relatively little. For example, in the field of arts and techniques the course for the honor group presents facts with reference to the historical development of mathematics, tracing that development through the centuries. The corresponding course for pupils in the low group presents only facts with reference to the nature of mathematics, its varied uses and significance in contemporary life, without emphasis on historical backgrounds. Naturally, the amount of historical material included in connection with various topics in the several courses varies considerably, but it is intended that the basic curriculum shall present in full panorama the present scope and the evolutionary development of the natural and human environment.

Biographical material presented in each course. It is significant also that all basic courses include material concerning the lives of persons who are closely affiliated with the subject to be studied. Every basic course includes considerable amounts of biography. This

biographical material has reference both to the individuals whose distinctive leadership has won for them eminence, and those typical persons whose contributions are individually humble and insignificant but who are so numerous that their joint effort has tremendous significance. To use a familiar term, every basic course is an "occupations course" in that it presents facts which will give the pupil insight into the human aspects of the subjects studied. For example, in the study of architecture the curriculum presents materials describing the work of famous architects as well as the work of the mechanics and laborers who participate in the construction of buildings. In the study of the nature and care of young children, the pupil is made to consider not only the lives and contributions of outstanding leaders in the movement for more thorough understanding of the nature and needs of children, but also the lives and contributions of persons in humble and ordinary positions who contribute much to the welfare of children.

Teachers in the school enthusiastically support this practice of humanizing all the basic subjects. They believe that it may incidentally aid many pupils in the determining of their own vocational destinies. For this reason it is the usual practice in dealing with this biographical material in the curriculum to present rather fully the facts concerning the personal qualifications, the preparatory training, and the vocational abilities needed for successful work in various vocational levels. However, the function of this curriculum material is not narrowly conceived in terms of its use in directing the vocational choices of pupils. Its primary purpose is cultural. The school holds that it is highly desirable for everyone, whether he is to become a scientist or a bricklayer, a stenographer or a pastry cook, to have an intelligent appreciation of the personal qualities, the labors, and the contributions of the many other persons who play their essential parts in the maintenance of our common culture.

Factual emphasis in the curriculum. The most important common element of the content of all courses in the basic curriculum is something which cannot adequately be described here. It is best understood in terms of the entire range of the life of the school. It is specified in the school's statement of purpose and implied by the activities of all members of the school. Reduced to very simple terms, this common characteristic of all basic courses is this: The curriculum emphasizes the necessity of getting facts into the possession of pupils, and the

necessity also of the pupils' interested and aggressive use of facts. The formal outlines of courses are stated chiefly in terms of the facts to be taught. The members of the staff are aware that some school systems have found it expedient to state the formal outlines of courses in terms of topics, attitudes, activities, and other variants. However, it is here so fully recognized that the teaching of a fact necessarily involves the development of interest in it, the recognition of its relationship to other facts and the tendency to use it as a guide in personal activity, that the formal specification of these matters in the printed outline of studies would be redundant.

Difficulties and criticisms. The school officials responsible for the development of the curriculum are fully aware of the vociferous disrespect paid to knowledge and to facts by panicky prophets of a new day in education in which we shall attempt to dispense with knowledge or at least ignore it except as it crops up incidentally. They believe that there is good reason to be distrustful of the efficacy and value of the facts or the reputed facts which have been presented in the conventional secondary-school curriculum. But in their judgment the hodgepodge character of the academic curriculum of the conventional school is sufficient explanation of its supposed ineffectiveness, to say nothing of the effect of the pedantic bookishness and the memoriter verbalization which afflict secondary education. At any rate the teachers in this school are not disposed to quit their attempt to present a curriculum of facts. Indeed, they are thoroughly convinced of the necessity of presenting a curriculum which will adequately portray the realities which every high-school pupil should understand and appreciate. They are also aware of its difficulty.

Method of curriculum construction. The nature of the content of the basic courses may be further indicated by describing the method of curriculum construction which is now employed in this school. It should be stated that the members of the school do not believe that they should construct their own basic curriculum. For one reason, they do not believe that any community is so peculiar or so isolated from the common currents of modern life that its basic curriculum should be peculiarly its own. They would much prefer to accept a curriculum produced by more competent persons or agencies than are available locally, although they have discovered that the processes involved in this work have produced many incidental values for the teachers.

In harmony with the attempt to produce unity and co-ordination in the four divisions of the basic curriculum the same method of curriculum development is used in the selection of materials for all basic courses. The informed observer will note that the procedure is similar to some of the methods recommended and attempted by Rugg and Bobbitt.

Consultation of authorities. When this basic curriculum was in its early stages of development the method employed in selecting material was somewhat as follows: The faculty committee responsible for the curriculum in one of the major divisions, or certain courses in one of the major divisions, secured the co-operation of a large number of consultants, usually at least fifty persons. These consultants were selected as objectively as possible from lists of persons who are widely recognized as competent authorities in the general field of knowledge represented by the curriculum under construction. Because there was some uncertainty as to the most feasible method of getting the recommendations of these consulting authorities, two different procedures were used tentatively. In one method the consultants were asked to indicate as specifically as possible the topics, the important generalizations, and the problems which the educated layman should know about and be interested in. In the other method the consultants were asked to recommend the books which contain the most important facts concerning which the educated layman should be informed. Both methods produced reasonably satisfactory results, but it was apparent that the first method required the expenditure of so much time on the part of the co-operating consultants that it should not ordinarily be used in the earlier stages of the work. Hence, it was decided to employ regularly the method of getting the recommendations of competent judges concerning the books which present accurately and comprehensively the matters which should become the intelligent concern of the layman.

It was recognized that the content of the curriculum would inevitably be biased to some extent by the selection of these consultants. In order to avoid undue influence by special interests it was first attempted to select judges solely on the basis of their known wisdom and interest in the fields of fact concerned, regardless of their occupations and educational backgrounds. For example, consultants in government were representative of various occupations. There were authors,

mayors, cabinet members, judges, legislators, business men, college professors, political bosses, and directors of research foundations. Experience soon indicated that some of these persons were not useful sources of information. Many of them seemed to be competent practitioners, but they were unable to provide needed information. Some said they were ignorant. Others were too busy or not sufficiently interested. Others felt obliged to use a great deal of time in suggesting irrelevant ideas. Typical of these irrelevancies is the attempt of the director of a large research foundation to describe at length the project method. He seemed to believe that it was something very new and promising, and he assumed that persons in this school had never heard of it.

Continued experience indicated that the most satisfactory consultants are college teachers or persons who have been college teachers. They were generally willing to give serious attention to requests. They seemed to be well informed not only about the facts of their fields but also about the publications which best present these facts. Hence the lists of co-operating consultants are composed chiefly of such persons.

Analysis of recommended books. The individual recommendations of these consultants are combined so as to show what books have relatively high rank as indicated by frequency of recommendation. Each of these books is then carefully analyzed by two or more teachers working independently. The method of analysis is uniform. Each analyst records the important generalizations developed in the book. These generalizations are ordinarily classified by the analyst into three groups: major generalizations, subordinate generalizations, and minor generalizations. The analyst also records the particular facts — events, situations, persons, things, and the like — mentioned by the author of the book in connection with these generalizations. In addition he makes record of the matters designated by the author of the book as important problems which demand solution. These materials are organized in outline form by each analyst.

The outlines are then compared by the different analysts who have produced them in order to discover differences or inconsistencies. If the records are found to be markedly different other analysts may be assigned to repeat the work independently in order to arrive at more dependable results, but this is seldom necessary.

The analytic records for various books are then combined so as to

show what materials are more frequently presented in all books analyzed. The matters most frequently presented in the books analyzed are assumed to be the minimum essentials, the basic skeleton of the course of study.

The final step in the work of these analysts is the tentative designation of minimum essentials for pupils in the low group, and additional materials for the pupils in the middle group and the honor group respectively.

Examining committee and its recommendations. The results of this analysis and classification are then presented to an examining committee of the faculty. This examining committee is expected to do three things. It must indicate what materials are probably so well known by high-school pupils that they do not need to be presented to the pupils. It must recommend the elimination of materials which are so difficult to understand that they are inappropriate for instruction at the secondary-school level. It must recommend the approximate amount of time to be devoted to instruction in this material in the program of instruction. These recommendations, together with the tentative course materials to which they apply, are then presented to the entire faculty for approval. Since the introduction of new material into the basic curriculum naturally involves either the elimination or reduction of other material already in use, new material must be carefully evaluated in relation to the material which it may displace.

Perhaps it should be stated that this method of curriculum construction is necessarily and properly a continuing process. In its early stages it required large amounts of work on the part of teachers, although there seems to be no inherent reason why it could not have been undertaken more slowly and gradually. At present, it means that teachers in the various divisions are regularly at work analyzing a few books which have been recently recommended by consultants and recommending some changes in the courses as the work goes on. Thus the work of curriculum revision is now merely a normal and regular part of the work of the school.

Emphasis on basic generalizations. This method of curriculum construction results in some curriculum characteristics which are believed to be decidedly advantageous. Perhaps the most important educational advantage arises from the fact that the factual basis of the curriculum — particularly the course for the lower groups — is made

up of generalizations or general concepts. The teacher is free to use whatever illustrative material is best suited to his own abilities and to the particular interests of his pupils. He is thus permitted to capitalize whatever cases or examples are pertinent or interesting in connection with the general concept or generalization which his pupils are to understand. This tends to stimulate the use of creative intelligence on the part of pupil and teacher and to put no premium upon verbal memorization of particular and specific facts. To be sure it is possible for a timid or uninspired teacher to vitiate any type of education by attempting to reduce it entirely to the level of stereotyped memorization. The expectation is, however, that the teacher will produce understanding of general concepts through appropriate selection of particular examples in adequate number and variety. Furthermore, the types of assignments and examinations which are used to test the pupil's mastery of the general concepts presented in the basic curriculum call not for the verbal repetition of statements memorized, but for the ability to apply and use these concepts in varied ways.

Adaptability of the curriculum. Another important advantage which teachers in the school claim for the type of curriculum they are using is that it not only permits and encourages adequate adaptation to the peculiarities of any local community, but that it really makes it quite unnecessary for particular school systems to undertake the construction of their own curricula. There is apparently no good reason why this curriculum might not have been very satisfactorily prepared by competent authorities a thousand miles distant.

It is obvious that the method of constructing the basic courses cannot be expected to turn out courses each of which will neatly occupy a year or a semester. The calendar is not ignored and the courses are so arranged that pupils will not reach what seems to be the middle of a subject and the end of the school year at the same time. However, it is believed that in one sense subjects of study do not have ends or middles. The whole basic curriculum is conceived as an organic synthesis in which the major divisions themselves are convenient but somewhat arbitrary. Accordingly, each curriculum division is looked upon as a continuous sequence in which the available time is proportionate to the nature and amount of topics to be presented in it. Each division of the basic curriculum is given one hour a day in every grade, but within these divisions the various units or segments of the subject

sequence are variable in length. The courses in each division are so arranged as to use in their entirety the total amount of time allocated to them, but there is no attempt to make the course schedules match the calendar of weeks and months. In order to make effective plans for excursions and field trips, the seasons of the year and the calendar of significant events outside the school are considered in arranging the sequence of topics in each division of the curriculum. However, there is no effort to expand or condense a subject of instruction in order to make it fit the school calendar of semesters and years.

Problems of sequence. One of the most important problems in the arrangement of course sequences within each of the major divisions of the basic curriculum is the matter of deciding what courses shall be placed in the early years of the sequence and which ones will come later. Several conflicting factors seem to make the problem impossible of satisfactory solution. In the first place, it seems desirable to present those subjects which are important for pupils to understand fully as late as possible, so that when he reaches them in his school career the pupil will apply to them the fullest possible measure of intellectual maturity. In the past this has been difficult to apply in practice because many pupils have left school at various grade levels. If very important courses were placed in the eleventh and twelfth years the result would be that pupils leaving school earlier would not benefit by them at all. As a practical expedient during the years when many pupils left school before reaching the tenth grade each division of the basic curriculum was divided into two sequences. The first sequence was presented in the seventh, eighth, and ninth grades. It included all phases of subject matter belonging in its division and presented that subject matter on a relatively elementary level. The second sequence was offered in the tenth, eleventh, and twelfth grades. Its topical content was very similar to that of the first sequence, but the materials presented were more advanced and required a higher level of intellectual maturity for their mastery.

Three-year and six-year sequences. During recent years there has been an increasing tendency for pupils to remain longer in school. There are many reasons for expecting that this trend will continue. Hence, it is possible to arrange courses in six-year sequences rather than in two three-year sequences, without barring many pupils from certain subjects through early withdrawal from school. However, the

teachers at work in curriculum organization are still confronted with a major difficulty. It must be remembered that the basic curriculum is intended to present facts which are essential for everyone to understand as fully as possible. It is obvious that the subject matter allocated to the early years of secondary education will inevitably be less thoroughly mastered than it might have been had it been postponed until the eleventh or twelfth grades. For this reason some members of the faculty are disposed to continue the organization of basic courses in two sequences. Other teachers believe that in the attempt to cover the entire range of topics within one of the major subject divisions during a three-year period it is impossible to avoid superficial and cursory treatment. They prefer to organize the courses in their divisions in single six-year sequences. Consequently, both types of organization are now in use. The courses in the divisions of natural science and humanities are now organized in two three-year sequences, while the divisions of social studies and arts and techniques are six-year sequences. In order to facilitate necessary transfer of pupils from one achievement level to another these types of organization are employed similarly in curricula for all three achievement levels in each division. Both methods of organization seem to be reasonably satisfactory, although it is expected that further experience will demonstrate the superiority of one method above the other. There is general agreement among the teachers that, if it were not necessary to provide for convenient transfer of pupils from one achievement group to another during the course of their high-school education, it would be desirable to organize the work of the low groups in two three-year sequences and the courses for honor pupils in six-year sequences.

Organization of sequence in natural science. In the natural science division the same general outline of subjects is used in both three-year sequences. The subjects included in each case are Astronomy, Geology and Geography, Biology, and Physical Science. The relative emphasis upon these various subjects can be inferred from the approximate amounts of time allocated to them. The material in Astronomy, Geology, and Geography is ordinarily covered in not more than one semester. Two years are devoted to the work in Biology, and Physical Science (physics and chemistry) occupy about one semester. The apportionment of time is approximately the same in both the first and the second sequence.

In the first sequence the curriculum materials are largely descriptive. They are concerned with objects and phenomena which are broadly typical and representative of general classes or families of beings and processes. In general the facts dealt with are the kinds of facts which might be observed by an interested and intelligent layman. The emphasis is more practical than theoretical. The function of the first sequence in natural science is to present a reasonably comprehensive synthesis or orientation in which the natural world in its entirety becomes more meaningful and interesting

Astronomy and earth science. The first course in astronomy is very brief, ordinarily using about four weeks of the first semester. It includes facts with reference to the general scope of the universe and its contents, with emphasis on the solar system, the sun, moon, and other planets; stars; comets; the nature and motions of these bodies; and chronology. The remainder of the first semester is devoted to the study of the earth. In it are presented relatively simple general concepts with reference to the matters conventionally designated by the terms: Physical geography, meteorology, historical geology, structural geology, dynamic geology, economic geology, biogeography.

Biology. The first part of the course in biology is a study of plant life. The concepts presented therein have reference to the origin, development, gross structure, general life processes, and distribution of the world's plant populations. Ecology is emphasized. The course is very inclusive in scope, so that the pupil may become familiar with a wide range of varieties of plant life. In general, the facts presented in this introductory course are those which will increase the pupil's insight and appreciation concerning the human implications and applications of the botanical environment. The course in plant life normally occupies about thirty weeks, so that the pupil completes this work during the first semester of his second year in the high school. He is then ready to begin his study of animal life.

The work in the general field of zoology is the largest single portion of the natural science division of the basic curriculum because of the fact that human biology is emphasized. Before taking up the study of human biology, the pupil devotes approximately one semester to the study of various aspects of the various forms and processes of animal life. This survey is very similar to that involved in the course in plant life.

Human biology. The course in human biology takes its subject matter from the fields usually designated as ethnology and anthropology, anthropometry, phylogeny, anatomy, physiology, pathology, and hygiene. It is inclusive of the relatively general and introductory concepts which are essential for intelligent insight and appreciation of the evolution and the maximum potentialities of human beings as physical organisms. The study of human biology in this first natural science sequence usually ends approximately at the termination of the first semester of the third year.

Physical science. The introductory course in physical science, which is given during the second semester of the third year, is a general survey of certain basic concepts in the fields of physics and chemistry. These concepts are presented in the curriculum in terms of their typical applications. For example, the significance of chemistry is developed largely in relation to its applications in pharmacy, agriculture, sanitation, industry, and the arts.

The second sequence in the natural science curriculum is a more advanced treatment of the fields included in the first sequence. It is advanced in the sense that there is more complete development of the fundamental generalizations which serve to explain and integrate the whole range of natural phenomena. It is also different from the first sequence in that there is more detailed and penetrating analysis of many phenomena which were previously presented in terms of their general characteristics.

Humanities. The division of the curriculum which is designated as Humanities is relatively difficult to describe clearly. In the first place it is sufficiently different from comparable courses ordinarily offered in schools to make it very difficult to suggest the nature of its content merely by naming conventional fields of study. Another reason for the difficulty is that the curriculum in this division is decidedly transitional and somewhat amorphous. The situation may be clarified somewhat by showing how it has come about.

Before this school undertook seriously to provide a better educational program it was offering a required course which was called English. This course was very much like English courses in conventional schools, in that it was an irrational conglomeration of annual training in the writing of letters, ineffective attempts to improve the practices of pupils in written and oral expression, study of literature

as a form of artistic expression, consideration of the realities portrayed in literature, and attempts on the part of the teacher to stimulate and direct reading as a "worthy use of leisure," in addition to a considerable miscellany of other matters reflecting the tastes of the individual teacher or the accidents of time and circumstance. Some of the teachers were of the opinion that this course was such a mess that the best thing to do would be to discard it. The English teachers, not unnaturally, were in favor of retaining it and incorporating in it anything new that seemed to have merit.

It was not hard to discover what to do with some of this course. It was obviously desirable to cultivate in all pupils certain abilities in written and oral expression. The faculty believed that the job could be done more satisfactorily by incorporating training in these educational abilities as integral parts of the basic program in its entirety and by administering remedial teaching specifically to those who needed it. The specification of standards for performance in written and oral expression for pupils in various grades and achievement groups, supplemented by the remedial clinics, is the outcome of that belief. The faculty were also of the opinion that it was desirable for pupils to know about various forms of literature as modes of artistry. They believed further that it is desirable for pupils to know about many other arts as well — music, architecture, painting, sculpture, the arts of the theater, for example. It seemed reasonable to provide for instruction in the art of literature in connection with the study of the various other arts. This was done and the division of arts and techniques includes as part of its curriculum materials with reference to the art of literature.

Instruction in humanities is not without precedent. When developments reached this point the English teachers began to believe that they had been shamefully disillusioned and deprived of their prestige. It seemed to them that there was nothing left for them to do which was in any way comparable with the extensive functions they had previously looked upon as their own. It was called to their attention that they had long been doing a distinctive task of such significance and merit that it deserves an important place in the education of youth. They were made to see that while they had been "teaching literature" they were devoting much time to the analysis of character, the interpretation of the motives and influences which shape human life, the evalu-

ation of personal actions in the light of ethical standards — in short they had been instructing their pupils in what we ordinarily call human personality or human nature.

Obviously this instruction had been casual and incidental. The literary materials used in English courses were not selected primarily for their representation of facts with reference to personality or character. The study of character or individual human nature had not been emphasized as a major function of instruction in English. It is, however, very apparent to those who are familiar with the work of English teachers that, aside from consideration of the characteristics of literature as a form of art, the analysis and evaluation of character is usually a major phase of it.

Problems to be solved. There was among the faculty members hearty conviction as the value and necessity of insight concerning the nature of individual human nature. It seemed to them that a curriculum which presented facts concerning the natural environment and the physical nature of human beings, the social aspects of human life, and the arts and techniques which men have developed, would be decidedly partial and lopsided if it did not present also facts concerning the personal aspects of human life. It would be a queer curriculum that offered no opportunity for human beings to develop insight concerning those things which make men distinctively human.

The most important difficulty was a practical one. There was uncertainty about what sort of curriculum to offer. There were some who believed that there should be specific courses in psychology, aesthetics, and individual ethics and philosophy, so that there might be more systematic treatment of the concepts which had been presented partially and unsystematically by teachers of English. Others believed that this would not be feasible, since these subjects are conventionally presented as advanced subjects more appropriate for college students than for high-school pupils. It was admitted, however, that many of the concepts conventionally included in these fields of study are certainly within the intellectual grasp of high-school pupils and that they are sufficiently important to merit insight and interest on the part of such pupils.

Another aspect of the practical difficulty in developing an effective program of instruction with reference to individual human nature lay in the fact that the teachers of English literature were somewhat ill

equipped with systematic knowledge concerning psychology, ethics, aesthetics, philosophy. Their own educations in these matters had been much like the haphazard instruction which they were giving to their pupils. It was obvious that even if it were possible to develop an entirely new and very systematic curriculum in humanities it would be very difficult for the teachers to use it effectively. This difficulty would be accentuated by the lack of books and other materials well suited to use by high-school pupils studying in this general field of knowledge.

A temporary solution of the problem. In the light of these difficulties it was decided to undertake the construction of a systematic curriculum of concepts concerning individual human nature, using the method of curriculum construction employed in all basic subjects. It was assumed that the curriculum content so produced might be relatively inadequate in amount or in educational validity, but it was expected that it would at least serve as a tentative and progressive step on the way toward a better program of instruction. The analysis of recommended books in the fields of psychology, aesthetics, ethics, and philosophy was a difficult task, but it produced an extensive array of concepts for consideration by the examining committee. Naturally considerable amounts of material were eliminated as being beyond the grasp of high-school pupils, although there were some who felt that the concepts were not too difficult for presentation to young people if the traditionally abstract and ethereal terminology of these fields could be translated into relatively realistic and concrete illustrative materials for teaching purposes.

It was recommended that during its early development this curriculum in humanities should contain a relatively small number of essential concepts so that teachers would be able to use time generously if need be. It was agreed also that, in order to make easier the transition from the casual instruction ordinarily characteristic of English courses to the more orderly instruction in an improved course in the humanities, the teachers might if they wished make no attempt to teach these concepts one by one in orderly sequence. They might very properly inaugurate the transition by using appropriately selected literary materials for the purpose of producing understanding of the essential concepts designated as the basic content of the curriculum in the humanities. A number of these concepts might be taught con-

currently and cumulatively. This gradual transition imposed no undue hardships upon the teachers. It also made it possible to profit by experience in discovering needed adjustments in the kinds and amounts of factual or conceptual content of courses.

Present content of "the humanities." At present, the curriculum in the division of humanities includes material concerning the genetic development of individual personality from childhood to old age; the nature and significance of intelligence, and its development in individuals; the nature and significance of learning; the development of character and its evaluation; aesthetic characteristics of human beings and the development of tastes and appreciations; ethical ideals and standards of individual conduct; concepts implied by the term philosophy of life.

Difficulties in the instruction of the lower group. Perhaps it should be remarked in passing that the teachers have found many perplexities in the selection of instructional materials for the pupils in the lower groups. It is obvious that in the various phases of human life represented in the humanities there is much conflicting belief and continuing controversy among authorities as to the nature of the facts. Particularly in the case of the relatively inferior pupils in the lower groups it is difficult to present unequivocally positive generalizations which are needed as a basis for intelligent action. In the case of the honor students, whose breadth of understanding and capacity for discrimination is reasonably adequate, it seems both necessary and desirable to present controversial matters as controversial. But the lower group pupils very greatly need sufficiently positive and definite beliefs to support and direct their own living. This need is not peculiar to the matters dealt with in the humanities. It is desirable to produce in pupils intelligent convictions with reference to sanitation, judicial systems, symphony orchestras, and control of insect pests, but it is much easier to bring to the attention of the pupil reasonably dependable and authoritative evidence concerning such matters as these than it is to find equally tangible or valid evidence concerning the mind and the spirit of man.

For many reasons, then, that part of the basic curriculum which is devoted to instruction in the humanities is perhaps the least satisfactory portion of it. There is, however, no question concerning its great importance. The recognition and encouragement given to this

field are not so much based upon satisfaction with what has been done as they are evidence of the inherent potentialities for the future. This division is a source of much difficulty both in the construction of the curriculum and in its teaching, but there is no inclination to disparage the attempt to present a curriculum which will increase the pupil's insight and appreciation of the distinctive characteristics of persons. This division of the curriculum offers especially challenging opportunity for future developments.

Social studies. The social studies division of the basic curriculum also suffers somewhat from growing pains. It has already been said that history, which is customarily included as a separate subject in the field of the social studies, has in this school been greatly extended and developed as an integral part of the entire basic curriculum. But the chief problem in the field of the social studies has been the matter of arranging the curriculum so as to produce a more orderly and complete sequence of studies which would adequately represent the entire range of significant social phenomena.

The former offering of courses in this field was a conventionally incomplete, sketchy, and unarticulated mixture of courses in history, civics, economics and a course called "Modern Social Problems," which was a fusion course dealing in scattered fashion with a miscellany of subjects. Some pupils learned a good deal about selected aspects of ancient Mediterranean civilizations, and, if they remained in school long enough, even fewer pupils acquired a speaking acquaintance with American history and with some of the controversial issues involved in problems related to immigration, labor, liquor, marriage, and crime. Altogether it was a dismally inadequate introduction to the highly significant phase of civilization which is implied by the word social. The present division of social studies represents an attempt to present a comprehensive, accurate, and balanced synthesis of the facts which may serve adequately as a foundation for growing insight and interest in the social aspects of our civilization. These facts are drawn chiefly from the fields of knowledge conventionally designated as sociology, economics, and government and political science.

Sequence in the social studies. The sequential arrangement of course content within the division of social studies is being changed somewhat from year to year. The arrangement now in use reflects a compromise in the attempt to present early in the course matters

which are relatively concrete and to postpone until the later years materials somewhat more complex and abstract, without breaking down the conventional organization of fields of knowledge. In the opinion of teachers in this field it would be impossible to claim any particular superiority for this particular arrangement or sequence. They believe it is possible that a fusion of the entire field of social studies might be very desirable, since it would permit the growing maturity of the pupil to be capitalized more uniformly in dealing with all aspects of social fact.

Content of the social studies. At present, the general outline of topics in the social studies sequence covers broadly these topics in this order: Communication and commerce, including postal service, telephone and telegraph, and various methods of transport; business organization, including the production and distribution of commodities and personal services; local governmental administration; social institutions and associations, including the family, religious institutions, health agencies, charitable agencies and institutions, social, fraternal, and political associations, penal institutions and reformatories, educational institutions; advanced economics, including domestic and foreign trade, land, labor, and capital, public finance; central governmental organization and administration, legislation and the judiciary; political theories, including forms of government and social organization, and international relations.

Arts and techniques. The fourth major division of the basic curriculum is Arts and Techniques. It shares with the division of humanities the distinction of being a greater departure from conventional practice than is found in the divisions of natural science and social studies. Here again it may be desirable to consider briefly some of the situations which were involved in its inauguration and development. From one standpoint it represents the attempt to bridge the vast gap between the subjects ordinarily called academic and those designated as vocational or practical. At one time this school offered a number of curricula which had very little in common. The pupil who followed the path of preparation for college did not come in contact with anything definitely related to the arts or occupations of men and women. If he was sufficiently interested and could find the time, he might take a course in cabinetmaking or mechanical drawing or vocational agriculture or even home economics. But ordinarily he did not do this,

and perhaps wisely. For these courses in the arts were intended to produce practical proficiency. They were concerned with training. The emphasis was on the immediate development of skill. The college-preparatory pupil could not afford to spend so much time in going through the concrete and often repetitive operations which were intended to develop performance abilities which would probably be of no use to him. He might well have had opportunities to develop understanding of these matters, rather than performance skills, but the curriculum of the school seemed to imply that most persons do not need to know anything about the arts, unless they are going to become productive technicians in them. As a result, the academic pupil was ignorant of the arts and of those who work in them, unless he developed that understanding in spite of his schooling.

Weaknesses of former technical courses. At the same time the pupil who was unwilling or unable to undergo the relatively rigorous and apparently impractical education which was offered for the academic elite had several disadvantageous alternatives. He could choose the commercial course, or the home economics course, or some course concerned with one of two or three trades. These "practical" or "vocational" courses were very narrowly conceived. It seemed to be assumed that the pupil would be merely a worker. If the pupil selected the commercial course he was given some training in the techniques of typewriting, stenography, or bookkeeping; he learned something about the nature and operation of clerical machines and the practical details of office management, he acquired sketchy information about methods of writing checks, depositing and withdrawing money from a bank legally, economical methods of employing postal service; and perhaps he memorized for temporary use a number of verbal statements about the entanglements of commercial law. These scattered bits of training probably increased somewhat the pupil's readiness for technical performance within the narrow confines of a particular occupation — an outcome which might be very useful in case the pupil happened later to get into a situation demanding certain performance abilities. But it was obvious that the pupil who spent his time in school developing the proficiency related to a particular vocation would probably be no better prepared to understand and appreciate the place of his later occupation in our complex culture than the college-preparatory pupil would be. Technical proficiency might be valuable in individual

instances, but it is not a satisfactory substitute for insight and appreciation.

Distinction between training for productive competence and instruction for appreciation. It seemed obvious that there should be a clear separation and conscious distinction between courses intended to provide technical training for productive competence and courses to develop appreciative understanding and insight. This clarification of function seemed to be necessary not only with reference to the content of the "vocational" and "practical" courses but also to certain courses in the academic curriculum. For example, the mathematics courses were said to develop appreciation of the significance of mathematics in our civilization, and they were obviously planned to produce proficiency in the use of mathematical techniques. In the same way the English courses had combined training in the production of work with some literary merit with the development of appreciative understanding of literature produced by others. The chemistry course had combined the presentation of facts for the development of insight with training in the operations of the laboratory technician. This procedure was justified, at least to the satisfaction of those who were responsible for it, by saying that those subjects could not adequately be appreciated except by following the long and tedious road to the possession of skill. This rationalization satisfied nobody but those who advanced it, for it was obvious that these specialists in mathematics and English and chemistry had in many cases developed considerable appreciation of many matters separate from their fields of specialization without having undertaken the development of proficiency or skill.

It seemed to be beyond the bounds of practical possibilities to produce understanding and interest in the many arts with which every layman should have definite acquaintance if the only means available involved the kinds and amounts of training needed to develop technical competence in them. It seemed to be much better to offer in the curriculum for all students materials which would increase understanding of the nature and significance of these arts, and to provide separately in specialized and elective courses the technical training which might be needed in individual cases.

Hence, the division of Arts and Techniques in the basic curriculum is entirely devoted to the development of understanding and appreciation

of arts. The production of technical competence is strictly excluded. It is thus made possible for all to become familiar with many arts, and those whose needs and interests require it may develop technical competence by means of additional elective courses.

The division of Arts and Techniques also makes possible a more appropriate allocation of materials which, although they have general application and significance, were formerly presented in the curriculum as if they were limited peculiarly to a narrow field of subject matter. For example, in the instruction in natural science courses there was description and adulation of scientific method. Hearing nothing about the scientific method in connection with other fields of study, the pupil would naturally infer that scientific method is something inherently and peculiarly related to the accurate description and use of fact in biology and physical science. Scientific method is but one instance. There are many arts and processes which are comprehensively applicable to many fields of fact. The techniques of mathematics, literary expression, and oral expression, and the various graphic and plastic arts are obviously not confined to the representation or treatment of particular fields of subject matter. It seemed highly undesirable to present the arts of literature as if they were peculiarly related and limited to facts concerning individual human nature, or to call attention to caricature and cartoon as if they were peculiar to the facts in the social studies. In developing its improved program the faculty of the school adopted as one of its general principles of curriculum the allocation of instruction for understanding and appreciation of generally applicable arts and techniques to the division of Arts and Techniques.

Sequence in arts and techniques. In this division also there has been difficulty in arranging the sequence of materials. Several factors have contributed to this difficulty. It seemed desirable to present early the arts which are relatively concrete and practical, and to capitalize the increasing maturity of the pupil by allocating the more abstract and intellectual matters to the higher school grades. From this standpoint it appeared to be desirable to place instruction concerning the household arts, mechanic arts, husbandry, and the like in the curricula of the lower grades, and to deal with the arts and methods of science, mathematics, logic, literature and similarly abstract subjects in the higher grades. An important weakness in such an arrangement

grows out of the fact that this basic material is selected for the purpose of developing appreciation and insight concerning the cultural significance of the various arts, and understanding of the types of ability and activity required for productive competence in them. Such material is an appropriate stimulus and introduction to personal endeavor to develop technical competence. In this way the instruction concerning the arts might well lead certain pupils to undertake training for personal skill in appropriate elective courses. If this is the normal procedure it is obvious that the pupil who waits until he has received instruction concerning the mathematical arts in his senior year will have little time thereafter in which to take special training which will make him proficient in the use of mathematics while he is in high school. Similar conditions would exist with reference to literary arts, and all other matters presented in the advanced years of the division of arts and techniques. The teachers in the school are fully aware of this difficulty, but there appears to be no practical method of avoiding it. Because of the relatively abstract and fundamental character of the principles of mathematics and the general method of science, it seems undesirable to present them before the pupil has developed as much intellectual maturity as possible. It appears to be equally undesirable to postpone until the advanced years cultural instruction with reference to the nature and significance of mechanic trades or husbandry, since those who are more likely to undertake personal participation in them are less likely to remain long in school. They are therefore in need of early introduction to the arts in which they may well undertake soon to develop certain personal skills.

Although the present arrangement of materials is certainly not ideally suited to the particular need of each individual pupil, it seems that an arrangement in which the relatively concrete and practical arts are presented first, leaving the more abstract and general arts for treatment in the advanced years, is about as good as any.

Problems of selection of course content. Another problem arises from the great wealth of potential material for this division. At best there can be no more than a very selective representation of the techniques and devices, the methods used by persons and institutions in carrying on the manifold phases of our life and culture. There must be a practical compromise between the inclusiveness with which these arts are represented and the thoroughness with which they are studied.

In the early period of development of this improved curriculum the emphasis was almost entirely upon extending the range and representativeness of the offering. Of late it has been possible and desirable to eliminate some topics in order to treat those remaining somewhat more thoroughly. It seems likely that this process of adjustment will continue to be somewhat fluctuating.

The plan of pupil grouping used in the school greatly facilitates proper emphasis on materials in this field. For example, it is possible in the lower groups to give more attention to the nature of a considerable variety of the occupations usually designated as low level occupations, while pupils in the upper groups give relatively more attention to the callings usually designated as superior — the professions.

The greatest practical obstacle to the development of this treatment of the arts and techniques was the obstructionism of certain high-school teachers whose fields of instruction were to be seriously altered. Teachers of mathematics and foreign languages, for example, although they approved of the idea of presenting to everyone facts concerning the great significance of mathematics and of languages in our contemporary civilization, strenuously resented changes which would reduce the instruction in these fields for typical students from several years to a few weeks or months. They would apparently have been quite willing to adopt a program in which all students should spend several years in the development of appreciation of mathematics or of language, even though it resulted practically in the complete exclusion of consideration of other arts which are important components of our culture.

The method of curriculum construction commonly employed in the basic subjects provided a very happy solution of the problem. Teachers of mathematics and the languages were allowed to make their own analysis of the books which deal with mathematics and language from a factual and cultural standpoint. It was soon apparent that there were not many such books, at least not many as compared with those in other fields. And when the analysts of the books presented their findings it was obvious that there was not much material. It was also obvious to the examining committee that many of the generalizations and concepts presented were so advanced as to make it almost impossible for high-school pupils readily to understand them and see their significance in relation to anything else. Consequently,

the materials on mathematics and language in the division of arts and techniques are more in harmony with the actual nature and importance of these fields as phases of our varied culture than with the hopes and dreams of mathematics and language teachers. Of course, the teachers of mathematics and languages are partially consoled by the fact that training for proficiency is generously provided in elective courses, and the highly important fact that the relatively few pupils who undertake these courses are well qualified by ability and interest really to develop satisfactory skill in them.

Arts and Techniques, the title given to this division of the basic curriculum, is to be interpreted broadly. It is meant to include the fine and useful arts, activities and processes, occupations and callings, which symbolize the historic ingenuity of men and which are the avenues or channels in which human energy and enterprise are continually directed. This division of the curriculum is evidence of the belief that, regardless of the particular activities in which the individual may participate creatively or productively, every person is necessarily a participant in all of the activities of mankind. He may participate unwittingly or consciously, immediately or remotely, directly or indirectly, intelligently or stupidly, selfishly or benevolently. In some way and to some degree he is the effective sharer of the manifold activities of men. It is the purpose of this phase of the curriculum to make this participation more intelligent.

Topical content of the courses in arts and techniques. This section of the curriculum is inevitably a potpourri. It includes a broad range of human activities. In connection with each of them there is consideration of the numbers and kinds of persons engaged in them, processes and equipment used, circumstances influencing them, their significance and values. In each case the treatment is necessarily somewhat cursory and incomplete, but it is intended that the instruction shall be as thorough as time permits. At present the topics included in these courses may be roughly and partially indicated as follows: Agriculture and husbandry, including the work of various types of farm producers in the field and orchard, pasture and paddock, forestry, hunting, and fishing; mining and metallurgical industries; architecture and the arts of builders; domestic arts, including foods, textiles and clothing, furnishings and decoration; gardens and landscape design; city planning; sports and recreations; music; sculpture;

graphic arts; the stage and the cinema; industrial management; printing, publishing, and advertising; engineering and technology; literary arts; mathematics; the professions, including the ministry, medicine, and the arts of healing, teaching, law; scientific research.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. It is assumed tentatively that all of the four major divisions of the basic curriculum should be given approximately equal emphasis and time in the schedule of classes. Consider the validity or weakness of this assumption.
2. Consider the comparative merits of teaching history as a separate subject or as an integral element in all basic subjects.
3. Evaluate critically the policy of emphasizing biography in all basic courses.
4. Some authorities assert that what is here separately classified as Humanities is merely one phase of Social Studies and that it need not be taught as a major field. Consider the merits of this view.
5. The curriculum of this school is primarily intended to be a systematic and comprehensive organization of reliable facts. Various authorities derogate such a curriculum and assert that it should be composed of other elements. Consider carefully the possibility and desirability of using something other than facts as a basis for intelligent and efficient living.
6. Evaluate critically, both with reference to its theoretical desirability and its feasibility, the method of curriculum construction here described.
7. Consider fully the respective merits and weaknesses of three-year and six-year sequences for the organization of courses.
8. Develop in considerable detail a tentative outline of content for one of the four major divisions of the basic curriculum.
9. Consider broadly contemporary trends in secondary-school theory and practice, and point out trends toward the sort of program which is here described. Consider also contrary trends.
10. Select some phase of contemporary instruction in a subject in which you are interested and suggest feasible ways in which certain elements of the program which is here described might well be incorporated in it.
11. Evaluate incisively either the program of basic constants in its entirety or some aspects of it in which you are particularly interested.

METHODS OF INSTRUCTION IN COURSES IN THE BASIC CURRICULUM

IT SEEMS fair to say that in this school there is less interest in the techniques and devices to be employed in instruction than in the outcomes which are to result from them. Teachers in the school are made to understand that there is very little stipulation of the particular procedures or instructional materials to be employed, but that there will be rigorous assessment of results. It is recognized that there is such wealth of potentially useful material and such great variety of effective teaching procedures that it is both unnecessary and very undesirable to depend generally upon a few stereotyped teaching procedures.

Hence, it would be difficult to indicate briefly, and at the same time in concrete detail, the methods actually employed by teachers in the various major divisions of the basic curriculum. There are, however, certain principles which tend to govern the nature of the teaching generally.

The curriculum as a directive outline. One of the most important of these principles is the idea that the program of courses so carefully organized and definitely set down in outline for the guidance of teachers figuratively does not exist. There is continual vigilance among the teachers lest they fall into the habit of assuming that the curriculum is an end in itself. Such a supposition would be a cardinal sin. Nobody is allowed to forget that the subject matter of the basic curriculum is actually the world, the things in it, the people in it, and the achievements of these people. The curriculum organized and recorded for the use of teachers and pupils is looked upon as a very useful pattern or schedule of the realities which the pupils are to know and become interested in. The recorded curriculum serves the school somewhat as maps and time-tables serve the traveler-explorer.

Errors to be avoided. But it should be noted that there is among

the teachers much caution lest they fall into the opposite error of assuming that the real world can only be known through direct contact and immediate personal experience. They take very seriously the stern truth in the old proverb which says that experience is a dear school, but a fool can learn in no other. They assume that those who are so stupid that they can learn only through experience should not be in school and that those who are in school should learn through more economical types of experience — vicarious experience or, if you will, knowledge.

This may seem to be a contradiction of the previous assertion that the teachers in the school carefully avoid looking upon knowledge as a thing in itself. The truth of the matter is that the school places a high value upon knowledge, but knowledge is conceived as understanding, the vital insight which gives mastery of the environment and prevents men from being blind pawns of circumstance. This is no mere compromise, no futile addition of plus to minus. It is rather a reasonable, common-sense attempt to avoid the narrow bookishness and cloistered pedantry to which schools are susceptible.

The school's effort to break down the barriers between the world of fact and the academic curriculum does not impair its loyalty to knowledge and its values. On the contrary the school is inspiringly devoted to the task of making known to boys and girls the realities of the world outside its own confines. This mission influences instructional procedures in many ways.

Knowledge must be translated into action. Another fundamental conception which shapes and colors the process of teaching in this school is the belief that understanding and insight should result in action. The possession of knowledge is in itself satisfying, but unless that knowledge contributes to the increase of intelligent behavior its potentialities have not been fully capitalized. In order to increase the pupil's ability and inclination habitually to use the understanding acquired in school in the practical activities of everyday life, the learning process in this school comprises not only procedures for the efficient acquisition of facts, but also opportunities for the employment of these facts in activities inside and outside the school.

It is for this reason that this school does not have the conventional program of "extra-curriculum activities." In place of the customary collection of miscellaneous activities, many of them quite unrelated to

the objectives and content of the curriculum and some of them actually in conflict with the effective work pertaining to the instruction in courses, there are carried on by pupils in this school a great array of activities and enterprises growing directly from the instruction in the basic curriculum.

Two aspects of instruction. In total, the process of instruction may be described as having two aspects. On the one hand it is the task of the teacher to draw upon the realities of the world for his subject matter, organizing and clarifying this subject matter to make it stimulating and meaningful. On the other hand, it is the teacher's task to encourage and direct the application and use of the resulting insights in more intelligent living.

It has already been suggested that effective adaptation to the different abilities and potentialities of pupils is one of the fundamental characteristics of the school. The details of instructional procedure can be best understood by comparing practices employed in the courses for the honor group and the lower group. In general, similar types of instructional procedure are used in all subjects in the four major divisions of the basic curriculum. The differences between instruction in the honor group and instruction in the lower group are considerable.

Varying types of instruction in different achievement levels. Because of their greater capacity for development and their ability more rapidly to master increasingly higher types of academic achievement, pupils in the honor group are given the benefits of gradual but considerable change in the methods of instruction as they advance from the seventh to the twelfth grade. In order to indicate the nature of these changes it may be helpful to describe separately the methods used in honor groups in the seventh and the twelfth grades. In the lower group the methods used change but little, and in the description of instruction for pupils in this group some of the changes will be mentioned incidentally.

Instruction in honor group. In the twelfth grade, instruction of honor groups is very similar to what is known commonly as the seminar method. At the beginning of a course the pupils meet their instructor in one of the small seminar rooms immediately adjoining the reference section of the library. During the few days at the opening of the course the instructor presents to them a relatively general and very

comprehensive introduction to the field of fact to be investigated in the course. Their attention is directed to the importance and significance of the field as a whole, and outside the class meetings the pupils immediately attempt to make a rapid survey of the whole field. There is very little direction of their activities. Not much is needed. By the time these honor pupils have become seniors they have developed competence to undertake such work independently and responsibly. Otherwise they would no longer be in the honor group.

During this period of rapid survey which in most cases continues not longer than two or three weeks, the majority of the honor students spend much of their time in the library, with occasional excursions elsewhere for the purpose of conferring with persons who because of occupation or interest are competent sources of needed information. A few students ordinarily make it a practice to initiate their rapid survey of the field of study by going first to sources of information outside the school, whenever such sources are available, in order to get at first hand actual acquaintance with the facts later to be further investigated in books. Some teachers continue to have regular group meetings throughout this initial period devoted to general survey of the subject. Other teachers dispense with regular group meetings for a time, but are available in the seminar room for conference with pupils at the hour scheduled for class meetings.

As soon as the pupils have made a reasonably adequate survey of the general field of the course, the entire group meets with the teacher to report and discuss findings. These findings are of two sorts. They include what the pupils believe to be the most important generalizations with reference to the field as a whole and also the questions and problems which seem to demand intensive study. The teacher supplements the reports of the pupils. There is usually some disagreement concerning the validity and importance of the generalizations and the problems presented by individual pupils.

Through discussion in which there is mutual criticism, suggestion, refutation, and substantiation, the group arrives at certain tentative agreements concerning what has been accomplished and what remains to be accomplished through further study. There is an attempt promptly to draw up an agenda or plan of work. It is customary in devising this agenda to designate some common problems to be studied jointly by all members of the group and some particular prob-

lems to be undertaken solely by individuals or by small committees. This agendum usually needs to be revised subsequently, and this is ordinarily done in group meetings called particularly for that purpose. But with minor exceptions of this sort the entire group does not meet formally again until the time has come to present and evaluate results.

As soon as the agendum has been agreed upon, the pupils set to work on their own initiative to do the work assigned to them individually as rapidly and as thoroughly as possible. They are free to do the work when and as they will. They are given free use of the time for the class meeting and many of them use this time particularly for individual conferences appointed among themselves and for work designated as problems or projects to be handled jointly by the members of the committees. The teacher, who usually is observant of what is being accomplished without any more intrusion or direct supervision than is necessary, is available for conference.

The problems and projects undertaken by the pupils in carrying out the work outlined and assigned in the agendum are of two sorts. Some are problems chiefly concerned with the search for facts. They represent, on a rather elementary or introductory level to be sure, what is sometimes called "pure research." The aim in such cases is primarily to get information, to evaluate by reference to authoritative sources a generalization or an opinion, and the like. Other problems or projects have a more practical objective. They involve the attempt to develop materials or methods of meeting certain practical necessities. Many of these practical problems are related to some phase of the life and work of the school. For example, these honor pupils produce materials to be used in the instruction of pupils in the middle groups or in the lower groups. In some cases they actually undertake to carry on this instruction in lower groups at the lower grade levels. Some of the practical problems involve undertakings for the improvement of conditions outside the school in the local community. In all cases, naturally, the practical problems so undertaken are closely and definitely related to the topics currently studied in their courses.

Some of these undertakings are of such nature that they cannot be adequately achieved within the time schedule for the course in which they are initiated. In such cases the pupils frequently carry them on to satisfactory completion, even though they are no longer under the direction of the teacher in whose course the projects were initiated.

The latter portion of the time allocated to the course is used for the presentation and consideration of the results achieved during the period devoted to independent research. All work outlined in the agendum is reported in written records. As a rule, all of these records are examined by all members of the group before they are discussed in group meetings called for the purpose of evaluating results. In the group meetings pupils who have been engaged in various projects are expected to show what they believe to be the most important results of their work, to answer questions from their colleagues, to consider criticisms and to meet such criticisms as adequately as possible. Not infrequently these final meetings of the group are attended by interested and competent persons not in the course. Usually these visiting members are other teachers. Sometimes they are laymen in the community. Occasionally they are other pupils from this school.

At present the school is experimenting with the administration of comprehensive examinations at the end of the twelfth year for pupils in the honor group and in the middle group. There are no regular examinations in particular courses for pupils in the honor group after they have completed the work of the tenth grade.

Elementary training for young honor students. Seventh-grade instruction of honor groups differs from that in the twelfth grade chiefly in the amount and extent of work done by the pupils without the direction and immediate supervision of the teacher. The seventh-grade honor pupils meet their teacher daily in their seminar room. As in the twelfth-grade group, the teacher introduces the course by giving to the pupils a preview of the course, including the nature and significance of the facts to be studied and very definite directions concerning the procedure to be used in the entire conduct of the work. The pupils are then supplied with a concise manual which specifies in detail the performance abilities which are required of them. It indicates what each pupil should be able to do in relation to reading skills, describes and illustrates certain forms for various types of written work, and suggests acceptable usage in the presentation of facts orally. It also gives a number of practical suggestions intended to help the pupil in developing efficient habits of study, including directions for the use of the library and the regulations which must be observed when it is necessary for the pupil to leave the seminar room or the library to go to shop or laboratory or outside the school to carry on his work. This

manual is used uniformly by honor pupils in their work in all of the major divisions of the basic curriculum. It is supplemented by bibliographies of the standard reference materials used in each of the major divisions. These supplementary bibliographies are furnished by teachers in each of the basic courses.

The group then begins the study of the first unit of work in the course. (In the seventh grade a unit of work usually represents about two weeks' work, although the length of the units is gradually increased from grade to grade so that by the time the twelfth grade is reached the pupil is ready to undertake a unit involving a whole semester or more.) The work for the unit is outlined in detail on "guides" supplied to the pupils. These "guides" indicate the matters to be investigated, the problems for which solutions are to be sought, sources of information, directions for efficient use of these sources, and a varied and numerous collection of suggestions concerning methods and forms by which the pupil may present evidence of his accomplishment. The "guide" designates certain items which all are required to use and others which are optional. (Both the specificity of these "guides" and the proportion of required work are gradually reduced as the pupil advances to the twelfth grade, so that during the last year's work he is practically "on his own.")

In beginning the work on the first unit the teacher briefly explains the purposes of it, and gives such information as seems to be needed before the pupils set about their work. Then the group is taken to the library. (There are some exceptions to this. Some teachers prefer to take the pupils to the museum or outside the school for some observations at first hand in beginning the work.) In the library the pupils are assisted by the teacher and librarians in finding the sources specified on their "guides." As soon as pupils have found the materials needed for a part of their work, they return to the seminar room. There the teacher gives assistance as needed, doing in general the sorts of things which are suggested by the proponents of "supervised study."

As a general rule, the majority of these honor pupils work informally under the supervision of the teacher during several days in which they are getting information and preparing to demonstrate the results of their labors.

The work on each unit is concluded with the presentation of the pupil's accomplishments. In most cases this involves a carefully pre-

pared written report supplemented by a brief oral report to the entire group. In some cases it takes the form of some object, device, or procedure, the production of which is described in an accompanying written record. In other cases it is merely a written record. No matter what its form may be, this evidence of accomplishment must be excellent in quality.

A supplementary test of a more formal sort may be given at the end of a unit of work. It will be given then, if at all, but tests are administered to honor pupils less frequently than to others. In order to give assurance that their level of achievement warrants their being placed in the honor group, these superior pupils are tested more frequently during their early years in school than during the later years. Moreover, honor pupils are expected to develop increasing competence in evaluating their own efforts and in assuming personal responsibility for maintaining high standards of achievement. By the time they have reached the tenth grade, honor pupils frequently do not take formal examinations.

General principles of the instruction for the lower group. Instruction of the lower groups differs markedly from their treatment in conventional schools, probably even more than that of the honor groups. The actual procedures employed may be somewhat better understood if certain fundamental principles are presented. In the first place, the pupil in this group is expected neither to have nor to display the types of competence which are the necessary characteristics of scholars. The school as a whole and the individual teachers in it waste no time or energy in regretting the pupil's lack of ability or inclination to read or to write or to speak well. Furthermore, the school in accepting this pupil has not obligated itself to make him a scholar. The school has not limited itself to giving him only the kinds and amounts of knowledge and insight which he can acquire through his inadequate attempts at scholarship. It has not even limited itself to giving him only what his relatively feeble efforts to acquire knowledge seem to earn for him. The school has obligated itself to give to this pupil the fullest possible measure of understanding and the inclination and ability to use this knowledge in living a better life. In the case of the relatively incompetent pupil, then, this school does its utmost to insure his having reasonably adequate insight and the disposition and the habit of applying it in living.

To repeat somewhat, the school is challenged with the necessity of making intelligent those who have little capacity for becoming intelligent, the obligation to elevate and improve the quality and efficiency of these persons' lives. It must achieve an enormous task, working with relatively unpromising material. In such a circumstance the school has no choice. It cannot, as in the case of the honor pupils, devote major emphasis to the development of insight and interest, assuming that the pupils will be able to apply these insights in action as subsequent life situations may demand. It is obvious that the relatively unintelligent pupil cannot bridge the gap between general knowledge and personal behavior in specific situations. It is obvious also that if his schooling demands that he shall attempt the performances typical of the scholar his failures are likely to produce in him a definite dislike and disrespect for the very thing that the school seems to stand for.

It must be remembered also that this pupil learns slowly. There is not time enough to have him get his facts through his own inquiry, develop facility to give verbal evidence of their possession, and in addition develop actually the habit of living intelligently. Even if it were desirable to attempt to do all of these things — which it presumably is not — the only possible way in which the school can expect to insure his possession of the facts he needs and the habit of applying them in living is to get the facts into his possession as quickly, as easily, as surely as possible and then to devote its attention to seeing that they are used.

The two phases of instruction of lower groups. The general pattern of instructional procedure is very similar in all basic courses for pupils in the lower group. In general it involves two phases. The function of the first phase is to produce in the pupil understanding of the concepts of the course, to arouse interest in these concepts, and to recommend desirable personal beliefs and practices. It is the function of the second phase to provide for application of these concepts, so as to establish at least the beginning of the habit of using knowledge in the practical concerns of everyday life. The first phase usually is carried on chiefly in the school classroom, where the teacher is the active agent in clarifying concepts and putting them vitally into the possession of the pupils. In the second phase the pupil becomes the active agent in carrying out projects or activities involving the further

mastery of ideas through use. These two phases of instruction are of equal importance. The teacher takes full responsibility for the planning and supervision of both.

Teaching procedure for lower groups. Pupils in the lower group assemble for instruction in the large classrooms, where they quietly observe the presentations of the teacher. The work of the teacher in the classroom consists chiefly of lecture and demonstration, although there is much variety and change in the sequence of events during the class meeting. The class meeting is planned definitely as an audience situation. Everything possible is done to present a program which will be remarkable for its dramatic artistry and singleness of effect. The teacher makes frequent use of the arts of the orator, the interpretive reader, the stage director, the museum curator. Graphic and pictorial materials are introduced frequently and in many forms. Some teachers who are sufficiently skillful make frequent use of blackboard sketches. All of them use display charts, motion pictures, and other projected pictorial and graphic illustrations. Brief pageantry and other forms of dramatization are sometimes introduced.

Where the nature of the subject matter makes it possible, things and processes are presented directly and clearly. Realistic appeal to the senses and emotions is consistently emphasized. A wealth of illustrative detail is used, but it is used solely to produce understanding and belief concerning a few highly important general concepts. The penetrating observer sees here a frank and intelligent adoption of many of the materials and devices which have been used effectively by the theater, the church, and the press.

Pupils in these classes are permitted and encouraged to ask questions and even to make individual comment concerning what they have seen and heard, but this is not expected nor required. If a student does show consistent inclination and competence to do this he becomes a candidate for transfer to the middle group. On occasion the group as a whole may participate in singing or recitative reading, but such activities are employed not as a mode of individual expression. They are employed primarily for their development of emotional solidarity and morale.

Sometimes examinations are used, not so much as a measure of pupil achievement but as a check to aid the instructor in knowing

whether or not his presentations have been effective. They are usually in the form of "new-type" examinations.

During this first phase very little in the way of personal performance is expected of the pupil. He is expected to be a courteous and co-operative member of the group. He is expected to be attentive and alert, although the instruction presented to him is so designed as to make such attention relatively effortless. The pupil is not generally required — at least in the introductory phase of instruction in which ideas are being acquired — to read, or to attempt to give expression to his ideas orally or in writing. He is, however, permitted and encouraged to do this if he will. Usually the teacher provides for the pupil's use a brief outline of the topics to be covered. This outline corresponds approximately to the unit "guide" used by the honor pupils, with some important exceptions. It is much less detailed in its outline of topics. It lists no required readings and the few readings which it does mention are simple, popular, and relatively elementary. It states no problems calling for the pupil's attempt at research. It does contain some things not included in the "guide" for seventh-grade honor pupils. In connection with the topics outlined it has some very simply stated generalizations representing the ideas which the teacher has attempted to "get across" to the pupils. The "guide" for lower groups also differs from that for the honor pupils in describing and recommending activities in which the pupil is to make practical application of the ideas treated in the class meeting.

These activities represent the second phase of instruction for pupils in the lower group. For the most part they call for definite, concrete action on the part of the pupil. Some suggest the production of material objects. Others require certain types of behavior or personal service. Others suggest supplementary reading. In some cases these practical assignments call for the development of some ability which the pupil has not already developed.

Generally the pupil is permitted to select the particular assignment which he prefers, but every pupil in the lower group is required regularly to undertake some assignment of practical work and to complete it satisfactorily. It is understood that he must supply to the teacher whatever evidence of such achievement the teacher stipulates.

There is no limit on the number of practical assignments a pupil may undertake, but it is required that everything undertaken must ordi-

narily be carried to satisfactory completion, except in those instances in which the teacher recommends that it be discontinued before completion.

In the majority of instances these practical assignments are of such nature that they may be done independently by the individual pupil, but they are of such character that the resulting product is serviceable to others. Pupils are permitted to select some projects in which both the process and the product are significant and valuable chiefly to the individual concerned, but there is continual emphasis on the necessity and desirability of making a contribution for the benefit of others. Such contributions may serve the needs of pupils in the school, or they may be in the service of members of the pupil's family or of other persons and groups for which he should develop habits of co-operation and effective loyalties.

Particularly among the younger pupils in the lower group the suggested projects are of such nature that they can be done in the school. But as the pupil becomes older and advances through school there is increasing emphasis upon activities involving normal participation in the activities of the community outside the school. In having this increasing participation in the affairs of life outside the school, the pupil has an important opportunity which is not offered in most secondary schools. He is, of course, establishing the habit of applying his increasing knowledge in the realm of everyday affairs. But no less important is the opportunity thus gradually to make a transition from life in school to living away from school. Because these adjustments are begun while the pupil is still formally enrolled in school, he benefits from the school's oversight and direction. The school also benefits in being able thus to know better the problems encountered by young citizens and to discern its own strengths and weaknesses in guiding them. Needless to say, this extramural activity is as broad and varied as possible. It grows out of the pupil's instruction in the humanities, the natural sciences, the social studies, and the arts and techniques in the basic curriculum, and out of his specialized training as well. It is applied as far as possible to many institutions and agencies in the community. He thus comes in contact with agencies for recreation, health service, government, business and industry, and the many other activities and enterprises with which he must be responsibly concerned as an adult citizen. This emphasis is a recognition of the

limitations inherent in the immaturity of the young and the desirability of effective adjustment to the various responsibilities of the adult citizen.

Achievements demanded of pupils in the lower group. These things the pupil in the lower group must achieve. Recognizing his relative inability to carry on the pursuits characteristic of the scholar and his lack of the superior capacities which should be found among leaders, the school realistically adapts its procedure so as to obtain the effective production of a maximum of insight and understanding. But, regardless of his scholarly inadequacies, this pupil must meet some very real demands for achievement, and, more immediately and directly than pupils in the middle and honor groups, he must demonstrate habitual inclination and ability to make use of the knowledge gained in the classroom in the improvement of his everyday living.

Instructional procedure in courses for the middle groups probably need not be described in detail. It represents middle ground. It combines in moderate measure some of the characteristics of the work in the honor groups with some of those of the low groups. It is at the same time somewhat similar to the work done in our more forward-looking conventional high schools, as far as the activities of the classroom are concerned. It does, however, differ from them in being somewhat less textbookish and more vitally concerned with the realities of the world outside the school.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Contrast specifically instructional practices described in this chapter with those employed in a school in which you are interested.
2. Illustrate the concrete application of principles governing the instruction of honor pupils by selecting a topic from one of their courses and planning in detail the materials and procedures to be employed by pupils in studying it.
3. In as much detail as possible indicate desirable content of the "Manual" which specifies performance abilities for seventh-grade honor pupils.
4. Undoubtedly, one of the major difficulties in giving practical effect to the methods of instruction described in this chapter is caused by the lack of enough competent teachers. Specify in detail the matters in which the typical secondary-school teacher is likely to have difficulty in teaching the lower group or the honor group in this school.

5. Indicate definitely the changes which would be needed in the education and training of prospective teachers in order to fit them competently to teach in this school.
6. In connection with some subject-matter topic of your own choice, describe concretely one or more practical assignments to be executed by normal pupils in the "second phase" of their instruction
7. Separation of pupils into three achievement groups is clearly impracticable in many small high schools. Consider the problems involved in the attempt to employ the methods of instruction described here in a very small high school, and suggest ways in which some of the major features of these methods might be adopted in it.
8. Point out the major elements of these instructional procedures to which teachers in conventional schools are most likely to object. Consider the merits of these probable objections.
9. Select any phase of the methods here described as a subject for rigorous and thorough critical evaluation

THE PROGRAM OF SPECIALIZED ELECTIVES

AS A COMPLEMENT to its program of instruction in the basic constants, the school offers an extensive program of specialized elective courses. The elective program is being augmented continually, and it is expected that this expansion will continue, regardless of the number of pupils who may be members of the school. The general scope and variety of opportunities for specialized instruction are indicated by the list of titles of courses now offered to pupils. These titles are as follows:

Speech Arts

Voice development
Interpretive reading
Public speaking
Stagecraft

Written Expression

Fundamentals of composition
Business correspondence
Essay writing
Versification

Mathematics

Business arithmetic
Algebra
Plane geometry
Solid geometry
Trigonometry
The slide rule
Calculating machines

Foreign Languages

Reading of French
Conversation in French
Written composition in French
French syntax and grammar
Reading of German
Conversation in German
Written composition in German
German syntax and grammar

Reading of Russian

Latin for college entrance

Adjunct Courses to Meet College

Entrance Requirements

General biology laboratory
General chemistry laboratory
General physics laboratory

Special Field Courses in Natural

Science

Forest trees
Flowering plants
Entomology
Astronomy
Geology

Miscellaneous Arts and Crafts

Propagation of plants
Plants for household decoration
Insect pest control
Selection and testing of seeds
Breeding and care of domestic animals
Poultry husbandry
Electrical instrument-making
Telephony and wireless
Photographic craftsmanship
Photographic chemistry
Pictorial design

Fundamentals of color and design	Refinishing of furniture
Pencil sketching	Metal working: Materials and hand tools
Water colors	Interior decoration of dwellings
Block cutting and print making	Home gardens
Lettering and illuminating	Dietetics and planning of meals
Sculpture	Fundamentals of cookery
Marionettes	Pastry making
Dress design	Economical purchasing of household commodities
Handloom weaving	The family budget
Hand needlework	Budgeting of personal finances
Machine sewing	Care of infants and young children
Bookbinding and the care of books	Bibliographical techniques
Printing: Typography and composition	Elementary accounting
Printing: Press work	Personal salesmanship
Typewriting	Marketing of agricultural products
Operation of copying appliances and manifold machines	Methods of promoting and organizing community enterprises
Stenography	Golf
Graphic representation of statistics	Tennis
Woodworking: Materials and hand tools	Auction and contract bridge
Woodworking: Machine tools	Instrumental training in piano, violin, cello, clarinet
Wood carving	Music notation and composition
Cabinetmaking	

Perhaps it should be explained that many of these courses are so arranged as to permit considerable adaptations to the needs of the individuals who enroll for them. For example, pupils taking work in entomology may give special attention to certain types of insect life. One pupil now enrolled in the course has confined his work solely to the study of bees. Such adaptations are facilitated by the fact that achievement in the elective courses is not standardized and symbolized in terms of units of academic credit. In the absence of such units or passing marks the pupil can more easily be allowed to do the kinds of work and the amounts of work which are needful in his case.

It is obvious that there is in this list of elective courses much similarity to the types of elective work offered in many conventional high schools. The actual content of the courses themselves is not unusual. They differ from conventional training in secondary schools partly in the provision made for capitalizing educational opportunities outside

the school. However, even those courses which are conducted within the school are significant for the full flexibility of their administration and the specificity with which they are made to meet the needs of individual boys and girls.

Some aspects of the significance and function of the courses offered as electives are best understood by comparing these courses with those in the curriculum of basic constants. The basic constants are designed to include the general education, the common culture which all persons should obtain as fully as their respective abilities permit. The elective courses are intended to provide training which may be equally important and necessary for some persons only. Consequently, there is in the elective program no provision for achievement grouping or other type of internal classification of students, because only those persons who are qualified as to ability and need are permitted to participate in these courses.

Chiefly concerned with the development of abilities or skills. The basic constants differ from the electives also in the fact that the former are concerned almost wholly with the production of understanding and appreciation as directly and immediately as possible, while the latter are largely concerned with the development of abilities, technical competences, skills, and the like. (There are a few elective courses in which the acquisition of knowledge is the primary aim, but in most of these the content might well be described as technical knowledge.)

Organized in small units. The electives also differ from the basic constants in that they are for the most part offered in very small units. This is particularly true of the courses which may be called elementary or introductory. The chief reason for this is the desirability of allowing a pupil easily to discover as soon as possible whether or not his aptitude for the work involved justifies his continuance in it. It would be possible, of course, to organize the courses in larger units and permit students to discontinue them whenever it seemed best, but this would increase the administrative and clerical work of the school without serving any useful purpose.

Specialized in character. Another important difference and an exceedingly important characteristic of the elective courses is the fact that they are very highly specialized. This makes it possible to provide for the individual pupil specifically what his individual needs seem to suggest. For example, students who are interested in acquiring

ing skill in the use of the French language have a number of courses open to them. If they wish they may take only the course in reading, in which case they are concerned only with the development of the ability to read French. Or, if they wish, they may also take training in conversational French in which oral and aural training are given. Again, they may add to the work in conversational French training in written composition. And, if they are particularly ambitious, they may also get training in syntax and grammar. Perhaps it should be explicitly stated that this strict specialization applies to the intended outcomes of training in these elective courses, and that teachers are free to employ whatever procedures are most effective in producing them. In the course in the reading of French, for example, the pupils do some oral and aural work, and pupils who are learning to write French do considerable reading and get some instruction in syntax. It is at present difficult to know what varieties and proportions of different ingredients should enter into the learning exercises of a course whose outcomes are definitely specialized. The teachers of these elective courses are, therefore, experimenting in an effort to find what kinds and amounts of training are most economical in producing specific outcomes. This makes it possible for the pupil who needs or desires comprehensive training in the use of French to get it, but the person who is reasonably well suited with training in but one aspect of the use of French finds it possible to get that training without having to go through the motions of taking several other types of training which he neither needs nor wishes to have.

In the same way the person whose interests or intentions involve the development of abilities of the sort that are often described as agricultural need not undertake anything like a complete training in that field. He may select specifically training in the propagation of plants, or in the control of insect pests, or in the marketing of farm products. Or he may combine all of these, together with many other aspects of agriculture.

This rigorous specialization in the administration of elective courses has at least one marked disadvantage. It does not offer appropriate opportunities for the pupil who has a broad major interest within a given field to get all that he needs without enrolling for a considerable number of specialized courses. For example, the rare pupil who should learn to read and write and speak a foreign language is undoubtedly

better off in a course comprising all of these objectives than in three courses devoted separately to each of them. In the same way a boy who expects to enter general farming as a vocation might be better served by a comprehensive course in agriculture than by a number of separately organized courses. For the first of these pupils the school has at present no very satisfactory provision. If there were more pupils, all of whom need in combination the same patterns of special abilities, it would be a simple matter to offer certain comprehensive courses including many of the specialties now offered independently. The school has in fact attempted to do this for some pupils who are very much interested in becoming generally proficient in mathematics and foreign languages. However, the difficulty of finding many pupils who at any given time are appropriately concerned with identical combinations of various special interests has hindered the development of comprehensive courses in these fields. In other words, many pupils need combinations of special training, but few of them need the same combinations. For the second pupil, the school has much more satisfactory provisions. Reference will be made a little later to provision for apprenticeships outside the school itself. Many pupils who take one or more specialized electives within the school are also enrolled for out-of-school apprenticeships to which these specialties are pertinent.

Individualized administration of electives. Another important characteristic of the elective courses is the fact that as far as possible they are administered on an individualized basis. Ordinarily a student may enroll in one of these courses at any time during the year. He carries on his work at his own rate of speed, using what time he finds it possible to give to it. This makes it possible for some pupils to obtain very large amounts of training. It permits others to accomplish less. One characteristic which appears to be both a virtue and a necessity is the fact that these elective courses are administered with a minimum of personal direction and immediate supervision by instructors. It is obvious that it would be entirely impracticable to offer such extensive lists of courses if they all involved continuous and personal supervision by instructors. It also appears to be desirable to develop in pupils the ability to learn something new without having someone else at hand to act as policeman, goad, and admiring audience.

In order to make it possible for a pupil to carry on his work in an elective course, a number of essentials are provided. The first es-

sential is the pupil's own purpose and desire. This ordinarily exists in ample measure, because there is such generous offering of electives that there is little necessity for choosing an elective by default, and because there is no pressure or school influence which would make a pupil enroll for any one elective course. (Some pupils in the honor and middle groups have to take some electives in order to qualify for admission to some colleges. They cannot be said to be greatly interested in some of these courses, but they realize that colleges are not the only institutions in the world which impose arbitrary requirements upon us and that we shall have to make the best of a bad situation.) Because the pupil undertaking an elective course is strongly interested in it, either for its contribution to his felt needs or for the preparation which it offers for some future goal, and because he knows full well that he must be automotive if he accomplishes anything in the course, the school need not concern itself about the provision of personal motivation by teachers.

Manuals provided for the direction of learning. In order to provide guidance and direction for the pupil detailed manuals are supplied. These manuals indicate to the pupil the steps to be followed in his work, the materials to be used, effective methods of procedure, and exercises, problems, or projects the satisfactory completion of which will indicate to the pupil his success in the work. Ordinarily, the pupil engaged in work on an elective course does his work in one of the shops, workrooms, or laboratories. There he is able to get assistance occasionally from other pupils or from the teacher in charge.

However, the school recognizes the desirability of making available to pupils special opportunities to develop certain types of competence which are best learned outside the school itself. Particularly for pupils who are expected soon to discontinue formal school membership, the school makes arrangements for apprenticeships in which they make the beginnings of vocational adjustments in commercial, industrial, domestic, personal-service, and other fields. Other pupils become part-time apprentices in various social agencies for recreation, health service, and character development. In many of these instances the co-operating agencies assume responsibility for directing the work of the young people and for providing facilities which are needed. Not infrequently youngsters thus become established in positions in which they remain after leaving school.

The school provides the equipment required for work in elective courses conducted in the school, and in some cases — in the course in chemical laboratory technique, for example — the school provides also the consumable materials. But in most cases pupils provide the materials. The school does provide these materials for some pupils who are unable to have them otherwise. Its policy is not motivated by stinginess. On the contrary, it wishes to have its pupils develop interests and abilities which are likely to be utilized effectively in out-of-school life. If the school were to provide generously all of the equipment needed by a pupil in any elective course, it would undoubtedly stimulate undertakings. But many of these would be discontinued by pupils leaving school because they would not be accustomed to using their own resources, or because of their utter lack of necessary facilities.

Rating of achievement. The pupil's achievement is very carefully measured or rated. If his course has aimed chiefly at the production of ability or skill, as in typewriting or in interpretive reading, he is given a rigorous performance test and his ability is recorded in quantitative terms as far as possible. Usually this test, in addition to indicating his performance in relation to objective standards, is analytic or diagnostic in that the results show wherein he is strong or weak. In courses in which the objective is ability to produce a tangible product, as in freehand sketching or in household decoration, the pupil's rating is based on the quality and extent of what he has produced.

Construction of elective courses. The planning of these elective courses and the preparation of manuals for them naturally involve considerable labor, and as yet the school has developed no satisfactory method of determining what courses should be offered and no uniform method of preparing the manuals and examinations to be used. Usually the courses originate at the suggestion of interested teachers, although many of them are suggested or requested by parents or pupils or interested laymen outside the school. Such suggestions or requests are presented to the principal or to faculty representatives designated by him for preliminary approval. If this tentative approval is granted, the suggested course is assigned to a particular person as a research project. This person is ordinarily a teacher, although in some instances this work has been successfully done by honor pupils and by able parents or laymen.

It is stipulated that the person undertaking the preparation of the

elective course must prepare a report in which he presents the following kinds of facts and judgments: The immediate objectives or outcomes of the course; an outline of the factual information which the pupil should acquire, supplemented by specific, annotated bibliography of sources for each item of information; a detailed and sequential list and description of the abilities or skills to be acquired by the pupil; a work-guide which the pupil can easily follow in order to understand clearly what is to be learned and how it is to be learned; a list of the kinds and amounts of consumable materials needed, and their cost; detailed specifications indicating the nature of special equipment (instruments, tools, containers, floor space, and the like); estimates of the kinds and amounts of personal supervision which a pupil will ordinarily require; estimates of the total amount of time which will normally be used in doing the work in the course; a statement of qualifications or prerequisites for registration for the course, if any.

This report is submitted to the principal or to persons specified by him. Then any of several things may happen. The report may be accepted or rejected, or further information may be called for. If the report is accepted, it may be recommended that the course be offered as soon as possible and that the necessary manual and materials be provided. It may be recommended that the further development of the course be postponed.

The decision concerning the availability of the course naturally involves consideration of its financial cost and its practicability, regardless of its desirability. But its desirability is carefully considered. Two factors, which by the way are often mutually opposed, are decisive. The first question has to do with the probable number of pupils who will take the course successfully, and of equal importance is the probability that the increased ability resulting from the course is at least potentially profitable in promoting the general welfare. Perhaps it should be admitted that in actual practice the first criterion has proved to be the more useful. It is much easier to predict the numbers of pupils who can and will successfully take a course than it is to predict the social contribution which the course will probably make. For example, during the current year several of the pupils requested a course in harmonica playing and indicated that there would be substantial enrollment for it, among pupils in the eighth and ninth grades particularly. At the same time a senior earnestly requested that he be

given a course in the mathematics of statistics. The persons asked to give preliminary consideration to these two proposals found that it would be quite feasible to give both courses, but there was marked disagreement concerning the probable social returns from each of these types of training. It was agreed that, if there had been equal numbers of qualified candidates for both courses, the course in statistical mathematics would surely deserve greater favor.

If it is decided immediately to inaugurate a course, the work of providing the manual and the materials is put in charge of a teacher in the school or a layman who works in co-operation with a teacher. It is noteworthy that laymen have been very useful frequently in making preliminary preparations and in assisting with the conduct of elective courses. In some instances laymen are paid for service of this sort. In other instances they have declined to accept any monetary return. Although the school has thus far always offered such payment, no final decision has been made regarding a desirable policy.

Various sources of materials for elective courses. No absolute generalizations can be given concerning the methods of procedure in preparing the materials for the course. The recommendations of the preliminary report are closely adhered to, but the preparation of the course depends upon what is available for use. In some cases, the school has found it economical and satisfactory to use almost without change courses obtained from correspondence schools. Some of these correspondence school courses are purchased from commercially operated schools. Others are generously provided by universities. In some cases it is feasible to use conventional textbooks published for school use, supplementing them with necessary guidance and direction. In other cases, use is made of the excellent manuals which some publishers provide for self-training in various arts and crafts. In only a few instances has it been necessary for the school to develop in their entirety the pedagogical materials necessary to offer an elective course effectively.

Varied uses of elective courses. These electives serve a variety of functions. One of their important uses is to enable pupils to meet diverse requirements for admission to colleges and universities. It is generally believed in this school that the best possible preparation for college work is the type of basic curriculum and the method of instruction given to honor pupils and scholarship pupils. The officials of the

school are hopeful that they may be able actually to demonstrate this to college authorities. But there is no intention of penalizing pupils through impractical idealism, and the school attempts to offer in its elective program the additional training which will permit competent students to enter college without handicap. There are certain elective courses which are intended solely to prepare pupils to pass certain examinations of the "College Board." In other cases, the school offers an elective course to be taken as an addition to a particular section of the basic curriculum, in order to permit the pupil to study this part of the curriculum more fully. These adjunct electives occur chiefly in the natural sciences, since some colleges require that the pupil shall have had laboratory training. Inasmuch as none of the basic courses requires individual laboratory work, pupils who need laboratory training take that work as an elective course supplementing their required work in the basic course.

Probably the majority of registrations in elective courses represent chiefly the fact that the pupils are interested in them. Some pupils say that these courses represent "hobbies" which they have or wish to have. Others say that they are taking electives as "vocational preparation." Although the school does make extensive effort to arrange out-of-school apprenticeships for youngsters who are about to leave or who have left school and whose chief need is opportunity for supervised adjustment to vocational life, its scholastic offering includes nothing that is arbitrarily classified as vocational. Many individual pupils are enrolled in some elective courses chiefly for vocational purposes. Other pupils are enrolled in the same courses for a variety of different reasons. The school makes no attempt to designate or to classify most of its intramural elective courses as distinctively related to leisure or to vocation or to anything else. It realizes that what is a mode of leisure for some is the labor of others, and that what is now a "hobby" may later prove to be a means of earning a living. It presents these activities as things which many people have done and will continue to do. It presents them as being worth doing if they are done purposefully and competently.

Integration with instruction in basic constants. In one sense these elective courses are made to serve a useful function in relation to the basic curriculum. Instructors in basic courses generally encourage and sometimes require their pupils to make use of abilities developed

in elective courses in the treatment of facts studied in the basic courses. For example, a pupil in an elective course in modeling and sculpturing will devote his entire output of models to the representation of subjects drawn from his study of basic subjects. In the same way, the pupil taking an advanced elective course in the reading of German will ordinarily read about topics studied in basic courses. Through this reciprocal relationship both the basic courses and the elective courses are mutually improved. Instructors in both courses consistently make it a practice to know about the work being done currently by their pupils so that they can capitalize the possibilities for combination of the two fields. This is rather easily done by the instructor in the elective course. He needs only to know to what grade level and group his pupil belongs in order to know definitely what topics he is studying in his four basic courses. The instructor in the basic course can easily discover what elective training his pupils have had. But, as a matter of fact, he seldom needs to make any effort to find out, because the guide sheets used in his course specifically suggest to the student the employment of any special abilities he may have and the student soon becomes habituated to this practical integration of his activities in the two programs.

It should be noted that the list of courses offered is greater than the number for which pupils are enrolled at any one time. Since the offering of electives is continually being increased, it is to be expected that there will normally be many courses which are not in use.

Fluctuating enrollments in elective courses. Usually enrollments in electives are relatively large at the opening of the school year and immediately before the summer vacation. This is because the majority of pupils start their work in them shortly after the beginning of school in the fall and complete it at various times during the school year without immediately starting work upon other electives, and because many pupils register for elective courses to be carried on independently during the summer vacation. This practice is becoming so popular that the school authorities are seriously considering the desirability of keeping the school in operation during the entire year.

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PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Criticize the list of elective courses offered at present in this school.
2. Which of these courses should be available to any pupil without prescription or prerequisites?
3. What prerequisites should be specified for each of the other courses?
4. A major necessity in the effective administration of specialized elective courses in this school is the provision of adequate tests of proficiency for measuring the achievements of pupils. Indicate desirable methods of measuring such achievement in several of these elective courses.
5. As a practical project, prepare as completely as possible plans and specifications for one of the elective courses mentioned in this chapter.
6. Some critics of this program of electives feel that the flexibility with which it is administered encourages superficiality on the part of the pupils, and that it imposes unnecessary administrative and clerical burdens upon the school officers. Consider the probability that these weaknesses might arise, as well as means of avoiding them.
7. Contrast this offering of specialized electives with the corresponding opportunities which are available in a secondary school in which you are personally interested.
8. Study some particular secondary school in the attempt to determine tentatively the probable list of courses which might need to be offered if there were desire to adopt the type of program here described.
9. Specify in detail the physical facilities and equipment which would be necessary for one or more of the elective courses mentioned herein
10. Should there be any limitation upon the quantitative scope of the type of elective program offered in this school? Formulate definite policies which should govern practice in this respect.

PUPIL ACCOUNTING: MARKS AND CREDITS

A PUPIL in this school would be puzzled if he were asked about his marks in school. He might reply that he has never received any marks for courses completed and that there are no marks in his school. This answer might be honest, but only partially true. The school does not give marks to pupils, although marks are used by the faculty in indicating the achievement of pupils for purposes of official record.

There is no particular objection to the assignment of marks to pupils in order to indicate to them or to their parents what the teachers think about their achievement, but the character of the educational program is such that the pupil cannot avoid knowing how he stands in the judgment of his instructors. Marks would be redundant in most cases. In the first place, every pupil knows that his location in a particular achievement level is the result of the amount and quality of his achievement. When a pupil is transferred from the middle group to the honor group he has unmistakable evidence of success, and if he is transferred from the middle group to the low group the evidence is no less real.

It is customary for teachers to advise pupils in advance of probable changes in their group status. For example, a pupil in the low group whose teachers find that his progress indicates that he may be transferred to the middle group advise him of the possibility so that, if he wishes to, he may undertake to put forth additional effort to get into the middle group. In the same way a pupil whose status seems to be changing for the worse is warned that there is prospect of his being demoted to a lower group, so that he may do something about it if he will or if he can. But pupils whose achievement is consistently maintained on its prior level are not periodically reminded of that fact. They do not need to be reminded.

In keeping its records of the achievement of pupils, the school records their percentile ranks in each of the respective achievement

groups in basic courses. If there is need, a pupil can find out what his rank in his group is, but he is not ordinarily informed of it.

In the basic curriculum there are no passing or failing grades in the ordinary sense. A pupil who fails to achieve what is required of him in his basic courses is merely demoted to a lower achievement group. If he happens already to be in the low group and is not meeting the minimum requirements for that level, the school must determine whether or not he should discontinue his formal schooling. In so doing the school carefully considers the possibilities of his being better off outside the school. If his home or some other institutional agency promises to give him an environment and opportunities which will be better for him than any opportunities which the school finds it possible to provide, the school seeks to have him discontinue his attendance at school. If there are no desirable opportunities available, the pupil is retained in school until some reasonably satisfactory adjustment can be made. If such instances were to become numerous, the school would be very seriously concerned to make substantial changes in its program.

In the elective courses, methods of evaluating pupil achievement are somewhat more complex and varied, although certain principles are uniformly followed. In the first place, the instructor who appraises the pupil's work does not assign an abstract symbol, such as a letter or a per cent. He states as concretely and accurately as possible what the pupil has learned to do. For example, in the reading courses in foreign languages it is customary to indicate the amount and type of materials which the pupil is able to read with accurate comprehension during a given period of time. In addition the instructor records the number of weeks which have elapsed between the pupil's registration for the course and its termination. He records also the amount of time consumed in actual work on the course. He records an accurate inventory of the extent and quality of the pupil's productions or accomplishments.

Each pupil's permanent record card in the school office shows in detail his percentile rank in his instructional group in basic courses (including the dates when he may have been transferred from one group to another), the record of his achievement in elective courses, and any citations or awards which he may have received in recognition of his special services to the general welfare of the school.

These facts are all recorded on the diploma which is given to all pupils upon completion of the six-year program in the basic curriculum. Since all pupils take the same program of basic courses and since the completion of that program is the sole requirement for graduation from the school, there is little need for arbitrarily numerical "credits" or other conventionally employed academic tallies. Sometimes the officers of the school have difficulty in translating the achievement records of their pupils into the particular symbols used by other schools when it becomes necessary to transfer a pupil to another institution.

In addition to this official achievement record, the school office keeps cumulative records of various facts concerning the individual pupil. These facts include such matters as the results of standard psychological and achievement tests, indices of physical well-being, home conditions and the like. These supplementary facts are kept on record not so much because the school now has general and positive use for them as because it may be very necessary to make use of them in the future. Since the school has undertaken a program which departs somewhat from the conventional program in high schools the officials of the school are interested in comparing the results of their work with the work of other schools. The psychological tests and achievement tests are used chiefly for this purpose. There are also various occasions when it is useful to have readily available various facts concerning a pupil. There are times when parents or pupils seek advice concerning their current problems or their plans for the future. In such instances school officials find it helpful to supply some of this information. In connection with all such requests for advice, however, the school follows the definite policy of giving pertinent facts and permitting the pupil or his parents to make a choice of any alternatives which may be open.

The school takes pains to avoid giving credit for effort or inherent capacity. It is assumed that it is wiser to recognize and reward achievement, which naturally involves various proportions of capacity and effort. Accordingly, the officials of the school refrain from providing special stimulation for the pupil who is apparently intelligent but lazy. There are doubtless individual instances in which a lazy pupil might be stimulated to greater effort if he were placed in an achievement group above that which his present achievement deserves, but it is believed that such a paternalistic policy would vitiate the whole program. If it appears that significant numbers of pupils are found

to be in achievement groups which are not in harmony with available data concerning their intelligence, steps are taken immediately to discover the reasons for the discrepancy and, if necessary, to adjust the nature of the educational program.

The pupil's personal audit and planning. A marked departure from conventional practice is the school's attempt to make pupils responsible for a continuous audit of their own individual progress and continued planning of their future program. In fact each pupil has in his own possession a little account book in which he keeps a record of the things he has achieved and of the quality of his work. He records as specifically as possible the nature and level of any special abilities which he has developed, as well as any disabilities which he has. Into this book also go his record of his own plans for the future, particularly as they have reference to his education. These plans are, of course, frequently changed in greater or less degree. The school takes considerable pains to encourage and assist pupils to assess their progress accurately and to make their plans intelligently. It is understood that these records of progress and planning are not merely for the use of the pupils themselves, but that they are subject to study by their parents, school officers, and the individual pupils' sponsors.

Sponsors for individual pupils. Every pupil in the school has at least one teacher who acts as his sponsor and some pupils, particularly those who are younger and pupils in the lower achievement groups, have more than one sponsor. The mature pupils in the honor group also act as sponsors for some of the younger pupils. Pupils who are likely soon to leave school very frequently have as one of their sponsors an adult layman who is not otherwise related to them. It is the definite responsibility of the sponsor to have the individual pupil very much on his conscience, to be ready at any time to give attention to any problem or request for assistance which the pupil wishes to bring to him, and to take the initiative when necessary in seeing to it that the pupil plans his work intelligently and that he has suitable opportunities for getting the help which will be best for him.

Although the sponsor is to some extent an adviser, his function is not so much to supply advice and answers to the pupil's questions as to exercise conscientious oversight over him and to see to it that he is learning how to manage his affairs competently. The sponsor has access to the school's record. The pupil's selection of specialized elec-

tive courses must have the approval of his sponsors. And they are consulted whenever it seems necessary to make some change in the pupil's status. Particularly when it appears that a pupil is about to leave school, his sponsors are consulted in order to be sure that there is clear understanding and approval of his probable future status.

Ordinarily a pupil's sponsors retain their responsibilities throughout his period of schooling and after he leaves school — in any case until he has established himself as a reasonably competent independent citizen or until there is definite indication that the further interest of the sponsor is no longer necessary or appropriate. It is understood, of course, that the pupil and his parents are primarily responsible for the pupil's progress and plans. The responsibility of the sponsor is secondary. He undertakes to keep himself fully informed about the pupil and to stand ready to help him whenever it appears that his assistance is necessary.

In addition to their more direct contributions in the oversight of individual pupils, the sponsors — particularly the adult lay sponsors — collectively aid the school considerably in suggesting changes in its practices. These advantages are, however, incidental. Their main function is to aid pupils in making their own plans as intelligently as possible in the light of their present attainments and circumstances and their future prospects.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Contrast the practices here described with those in a conventional secondary school in which you are interested.
2. Evaluate critically the methods of academic accounting used in this school.
3. Prepare forms for diplomas to be awarded to pupils who are graduated from the school.
4. Prepare forms for comprehensive permanent records concerning each pupil.
5. Evaluate critically the school's practice in providing sponsorship for individual pupils.

THE PHYSICAL ASPECTS OF THE SCHOOL

EXTERNALLY the school building is simple and unpretentious. It appears to be temporary rather than monumental. Aside from its simplicity and lack of adornment it is much like conventional school buildings. There are, however, certain noteworthy characteristics. Although there is ample space for light and air, the school site is small, so that the school building seems to fit naturally into its locale. It does not have the appearance of a mammoth mausoleum in a park. One notices also that there is no athletic stadium — not even a graveled playground. It is furthermore immediately apparent that the building lacks the uniform spacing of windows which is the outward evidence of row upon row of classrooms identical in size and shape.

The main entrance, which is one of several doorways, opens into a small reception hall. Here is the information desk, with equipment for the telephone operator. We are directed immediately to the office of the school secretary who arranges our itinerary and provides guides for our school visit.

The museum. Immediately before the main entrance is a spacious museum. The nature of its contents is at first somewhat bewildering. The teacher temporarily in charge calls attention to a large chart on which are emblazoned concisely in harmonious and balanced pattern the names by which we usually refer to the fields of knowledge which altogether represent what man knows about his world. The teacher explains that this museum, like almost everything else in the school, derives both its meaning and its purpose from what she calls the “basic curriculum.” This basic curriculum is briefly symbolized by the chart, and by the great variety of materials in the museum. In fact everything in the museum is put there for the purpose of representing or interpreting the facts which the pupils study in this basic curriculum, and the variety of materials is evidence of two important characteristics of the school — the breadth and balance of its basic curriculum

and the variety of modes of expression and materials which are used by pupils in their mastery and application of that curriculum.

The museum is divided into four sections, corresponding to the four major divisions of the large chart on the wall. These divisions are called "Natural Science," "Social Studies," "Humanities," and "Arts and Techniques." In each of these sections there is representation of a varied miscellany of subjects presented in many forms and media.

Social studies display. In the section devoted to social studies there are charts showing the organization and relationship of local, state, and federal courts; trends in the age, sex, and place of residence of persons convicted of various criminal offenses; the organization and functions of governmental agencies in the town and county; thirty-year trends in the national income of farmers, professional workers, industrial workers, and owners of securities in terms of purchasing power; the age, occupational experience, political service record, and special interests of each of the members of the local town council; the types of government now represented in various countries of the world, their distinctive characteristics, and their supposed merits and faults; proportional sources of financial income in the federal government and proportions expended for various purposes; results of a comparative survey of two districts in the town with reference to size of family, living conditions, employment of various members of family, and the like; the nature and extent of international wars during the past two thousand years. In addition to such charts there are many pictures, photographs, cartoons, caricatures, posters. Governmental officials, economists, social workers, are represented. There is among these pictures a noteworthy series of photographs showing large public works now in progress throughout the nation. Another series dramatically symbolizes the social environments of people living in city slums, farm homes, prosperous residential estates, and urban apartments.

Plastic materials are also used in this exhibit. We note a very clever group of sculptured caricatures of contemporary social reformers. An accurate model of some pupil's vision of the ideal physical development of his own community is an attractive exhibit.

Natural sciences. In the natural science section there is similar variety. Included in this exhibit are charts showing the meteorological conditions in several widely scattered localities during a period of years; a statistical survey of the prevalence of certain human diseases in the

United States; the typical genetic cycles of forests in representative sections of the country; geographic origins of many plants used on American farms; a key for the identification of wildflowers in the vicinity at this season of the year, the development and relationship of various breeds of dogs; the historical development of man's knowledge of the structure and functions of the human body; a descriptive classification of the flora of the community golf course (possibly cultural education for caddies); the nature of various theories concerning the origin of the earth.

There are also numerous pictures, models, and actual specimens of the facts and the realities dealt with in the study of the world of nature.

Humanities. The materials exhibited in the section devoted to the humanities are relatively difficult to describe meaningfully in brief terms. Our guide explains that this section is intended to represent the study of human personality. It deals with the intellectual, the aesthetic, the spiritual, the ethical aspects of human nature. By their very nature these subjects are difficult to represent in graphic or plastic form. It is obvious that in this section, as contrasted with the others, there is a preponderance of material produced not by the pupils or other members of the school but produced by great artists or other competent interpreters of personality and the human spirit.

Among the subjects or topics represented in the form of graphic charts are the growth of intelligence in the individual (based chiefly on the data derived by Terman and other workers with intelligence tests); the significance of man's adaptability as contrasted with that of plants and animals; contrasting conceptions of original nature; the processes by which man remembers; the theories of various psychologists with reference to the basic motives or "drives" which influence man's behavior; the personal qualities emphasized by the world's great ethical teachers; the influence of environmental factors on man's interests and tastes; the importance of self-discipline as the foundation for personal freedom; various interpretations of culture; a self-rating test of certain attitudes. There are also various representations of the persons, the lives, and the achievements of particular individuals, some historical and some contemporary, who merit the consideration of students of human character. They are chosen from various walks of life. Some are examples of noble idealism, some are otherwise.

In some cases pictorial or plastic media have been used to portray

visually the interesting characters drawn from the bibliographies, novels, plays, and other literature used by pupils in their study of the humanities. Ordinarily this material is produced by the pupils.

Arts and techniques. The section concerned with arts and techniques is perhaps the most richly varied part of the museum. It represents the methods used by individuals and institutions in the production and application of materials, in the provision of personal services, in the earning of livelihood, in the search for new knowledge, in the expression of thought and feeling. Among the subjects now represented in the displays are the historic development of domestic architecture in different sections of the United States; the technique of etching; the historical development of industrial fabrication of textiles; techniques and equipment used in modern mining, the production of books; the essential steps in the general method of scientific research; methods employed for promotion of propaganda; methods and equipment used in the production and transmission of radio entertainment; methods employed in landscape design; the work of the lawyer, the work and contributions of the mathematician; the method of producing a play in a commercial theater. Here also the facts are presented in a variety of forms and materials.

Our guide explains that the contents of these exhibits are continually and rapidly changed. At no time does the material exhibited fully represent the subject content of the basic courses, although in the course of the school year the representation of the curriculum is reasonably complete.

Educational function of the museum. The materials in the museum are closely related to the entire program of courses offered in the school. They are intended to represent and interpret the ideas developed in the basic courses and they involve the use of abilities produced through training provided in the school's generous program of specialized electives. They provide an appropriate opportunity for the demonstration of the individual pupil's ability, but their foremost function is to add to the understanding and interest of others who come here to observe and to study them.

Only those materials which meet a high standard of excellence are accepted for display. In order to be accepted, material must be approved by a committee of teachers and honor pupils supervising the particular section to which the material belongs. Many of the pupil-

prepared exhibits displayed in the museum are the concrete result of projects assigned by teachers in various courses in the school. Many of them are used by teachers in the direct instruction of their classes, particularly in the classes for pupils of mediocre ability.

We are advised that this museum is intended primarily to perform an educational function. It is in no sense a trophy room. It is not a collection of curios or antiquities. It is intended to add to the insight and understanding of all members of the school, and nothing is displayed in it unless it promises to serve that purpose.

Special projection room. Adjoining the museum and closely related to it in function are two other rooms. One of them is a small projection room where individuals or groups may come for special study of subjects or methods best presented in motion pictures. In most cases these motion pictures represent things or processes related to the technical work which some pupils do in their specialized elective courses. The instructors in these courses direct their pupils to use these films when necessary, and they are ordinarily permitted to study them at any time. There are some elective courses concerned with the development of rather specialized abilities in which the pupil frequently gets most of his information and direction about his own procedure from careful and repeated observation of a motion picture.

Supplementary materials room. In the adjoining room useful display materials are stored. It is not possible to store all of the materials for any great length of time because the supply is being continually augmented. Some of the materials so stored are kept for later display in the museum, but the greater part of these exhibits will be used by teachers in the instruction of their classes. Teachers are expected to designate the materials which will be useful for purposes of instruction and to use the material when needed. In this way the school is building up a large supply of visual materials for instruction in courses. Included in this collection are thousands of lantern slides and large numbers of motion-picture films for use in instruction. They are carefully classified according to curriculum topics. Many of the lantern slides have been produced by members of the school, some by teachers and many of them by pupils. These visual materials, both the museum exhibits and the additional projection materials, are used regularly by instructors in all subjects, but principally in the classes for pupils of relatively low academic achievement.

Classrooms for the lower groups. Near by are the classrooms where instruction in the basic subjects is given to the pupils in the low-achievement groups. These classrooms are somewhat larger than those in conventional high schools; each has seats for about seventy-five pupils. (We are told that they would be larger if there were more pupils enrolled in the school, and that the building has been planned to make it possible to increase the seating capacity of these classrooms if the school should increase in numbers.) These classrooms look more like little theaters than schoolrooms. The seats are not divided by aisles, and the conventional desks are lacking. It is apparent that the pupils are not expected to move about the room and that they do little writing, for there is only a small tablet arm at each seat. There is no place for the storage or use of books. The room does, however, contain some interesting and somewhat novel equipment. At the front of the room is a small stage, equipped for effective lighting and raised sufficiently so that it is easily a strong center of interest. The stage is provided with adequate devices for a variety of types of presentation. It is equipped with apparatus for the projection of motion pictures with sound. There is also provision for presentation of radio programs and electrical presentation of phonograph records. Efficient easels for the presentation of numerous graphic displays are also provided.

The motion-picture projector is at the rear of the room, but lantern slides are used in a reflecting projector at the front of the room, so that the instructor may more conveniently conduct his presentation. The large desk for the teacher is missing. There is a portable reading stand for use on the stage. A few shelves are provided for the temporary filing of materials to be used during the lesson for the hour. The general effect of the room is one of extreme simplicity. All details of lighting, decoration and arrangement have obviously been planned with one idea in mind — to direct attention to what is presented by the teacher.

These classrooms for the normal groups are practically identical, except for differences in their decoration. We are told that they may all be used with equal effectiveness for instruction in any of the basic subjects.

Workrooms and shops. The remainder of the main floor is composed chiefly of workrooms and shops. These workrooms are interconnected, so that the pupil whose work requires the combination of

materials or equipment in more than one of them may work conveniently. The first room we come to is called the paper room. Here pupils who wish to carry on work which involves the graphic representation of facts find paper of various grades and sizes, various media for representation in line and color, and necessary furniture and equipment for the design and execution of projects. Here are kept on file syllabuses or manuals to be used by pupils who register for elective courses in any of the various forms of graphic representation. One part of the room is available for use by all students who need to use it, but one section is reserved for pupils who are taking elective courses. Naturally the reserved section contains the more specialized and valuable materials which are needed for work in the elective courses.

Adjoining the paper room is the printing room. The equipment here is relatively simple and elementary. It includes hectographs and other simple types of manifolding machines, some small hand presses, a small power-driven job press and a few fonts of type (some of rubber and others of type metal), as well as equipment and material for various forms of block printing.

The next room is the typing room. It is divided into two sections, one for pupils registered for courses in typing and the other for pupils who need to use a typewriter in connection with their school work. Ordinarily the latter are expected to use their own machines, if they have them, although the school provides some machines for such use.

Near by is a shop containing mechanics' hand tools, and adjoining it is a shop for the use of machine tools for work with wood and metals. The other shops or workrooms on this floor are those for food preparation and textiles. The latter is equipped with hand and machine tools for needlework and various forms of weaving. The large auditorium and conventional storerooms and other service rooms occupy the remaining space on the ground floor.

The school library. The central feature of the facilities on the second floor is the school library. It is relatively much larger and better equipped than most school libraries are. It contains three main divisions. One of these is the collateral study room, which is used chiefly by pupils in the middle group. It contains numerous tables at which pupils may study. The walls are lined with cases containing books assigned for reading in the various basic courses. The books are classified by courses so that pupils may find them with-

out difficulty. A second major section of the library is the general reference and reading room. It contains current periodicals and standard reference works such as encyclopedias, dictionaries, atlases, bibliographies, and catalogues. The third major section is given up to book stacks and study alcoves for use by honor students and teachers.

The library is naturally equipped with its service department in which books are received, catalogued, and repaired. The repair department also serves as the bookbinding shop for pupils who wish to take elective work in bookbinding. Perhaps it should be mentioned in this connection that the library is used, in addition, for the training of pupils who take other elective courses, such as the course in bibliography.

Directly adjoining the general reference room and the stacks are the seminar rooms for pupils in the honor group. Each seminar room opens on the library. Each room is equipped with a large table and enough chairs to accommodate a small honor section of pupils meeting in conference among themselves or with their instructor. When seminar rooms are not being so used they are available for study by individual honor pupils or teachers using the books in the stacks or reference room.

Near the library are the offices of members of the faculty, including that of the principal. The principal's office is located here, rather than near the main entrance to the school building, chiefly for the reason that most of his time and effort is devoted to the continuous development and co-ordination of the educational program of the school. In order that he may do this the management of administrative routine and the details of the organization of personnel are largely delegated to the school secretary.

Classrooms for the middle groups. The rooms for class meeting of pupils in the middle group are located on the second floor also. They are similar to those commonly found in conventional high schools. In general, the special equipment or materials for instruction in specific subjects, such as books and other study materials, are those used by pupils in the seventh and eighth grades. In these grades the learning activities of the pupil are more comprehensively guided through the personal supervision of the teacher than in the advanced grades. As the pupil develops ability to do more and more of his work independ-

ently it is expected that many of his activities in connection with his study of his basic subjects will be carried on in the library or in the various workrooms in the school or even outside the school.

Clinics and additional workrooms. The second floor contains also a number of workrooms. In general, they represent the types of activities or materials which are more likely to be used by pupils in the middle and honor groups. It should be understood, however, that many pupils in these groups make use of the facilities in the workrooms on the first floor, and some pupils in the low groups use those on the second floor.

There are three workrooms or laboratories which serve a very significant function. In them is carried on the diagnostic and remedial work in relation to the three fundamental abilities for which the school has rigorous standards — reading, oral expression, and written expression. Pupils whose performance in any of these abilities falls below standard for their grade or achievement group in the basic subjects come to these clinics for diagnosis and remedial treatment. The room for clinical treatment of reading is equipped with materials and devices for the accurate diagnosis of reading abilities and the remedial treatment of disabilities. Separate rooms for work in oral expression are equipped with special materials for similar purposes. Each of these clinics is in charge of a teacher having special training and competence for this work. These clinics continually made use of facts and services provided in the department of health service which will be mentioned later.

Near by is the workroom for training in vocal arts. It is equipped with devices for phonographic recording, radio broadcasting, and musical accompaniment. It is used appropriately for work in a variety of elective courses, including some of the oral work in foreign languages. Elective courses in dramatics, however, are carried on chiefly in the classrooms used for instruction with the normal groups, or in the larger school assembly hall.

Among the remaining workrooms on the second floor are sound-proofed practice rooms for instrumental music, workrooms for physical science and biological science; a photographic studio and darkroom; a mathematical and statistical laboratory.

The lounge. A rather distinctive feature of the school is its lounge, which is provided as a place for quiet rest and relaxation. This is

a very recent development and its feasibility remains to be proved. It was inaugurated chiefly upon the recommendation of the department of health service. There are still a few teachers and not a few pupils who seem to think that school life should normally be made up of hard work, relieved occasionally by hilarious play. The committee of pupils and teachers who are responsible for directing this innovation and making decisions about its continuance are hopeful but uncertain about it.

Department of health service. The department of health service which is operated in conjunction with the school is housed in a remodeled dwelling adjoining the school. This arrangement is looked upon as temporary, since it has not yet been decided definitely whether health service should be a major responsibility of the school or whether it should be a special community service in its own right. In this building are provided as nearly as possible what corresponds to the clinical and out-patient service conventionally obtainable at a good hospital. The building is adequately equipped for use by the nurse and internist who are there daily and the specialists who are available by appointment. These specialists include an oculist, an orthopedist, and a psychiatrist who are readily on call throughout the year, and who come periodically to make certain routine examinations. Other specialists are called as occasion arises.

It is pointed out that this department of health service is not directly responsible for health instruction in the school. That is included in the basic instructional program. The function of this special department of health service is to provide competent clinical examinations and treatment for boys and girls of school age. It is primarily a community enterprise, and the school has encouraged its development as such an enterprise.

Possibly it should be noted in this connection that the school makes no attempt to provide facilities and a program for athletic sports or other physical recreations. The school has, however, encouraged the development of an independent community project for outdoor sports and other physical and recreational activities. In its own program it therefore avoids duplicating or competing with this community recreational program, which is participated in not only by boys and girls but by adults as well. The school believes that there are marked advantages in a program which is thus available to people of all ages, and that

a school is not suffering any discernible disadvantage in being without its own program of athletic sports and like physical activities.

The morning schedule. The daily schedule of classes and activities differs in some respects from that of conventional high schools. The morning hours are entirely devoted to instruction in the four divisions of the basic curriculum. At five minutes after eight all pupils in the school assemble in the respective classrooms in which their first class meetings are held. Every morning a ten-minute period is used for the presentation of matters which concern the entire school. Frequently the principal or an instructor or student leader speaks by means of the radio equipment. Ordinarily, however, this time is used in various ways in different classrooms and on different days. The instructor may read to the pupils something well suited to help them enter the day's work in an inspired mood, or there may be music or a brief bit of pagentry. Whatever the form or medium, the purpose of this brief period is not unaptly called devotional. It is designed to stimulate and inspire.

Instruction for all pupils begins promptly at eight-fifteen and continues until twelve-fifteen. During these hours each pupil has attended four classes, one in each of his basic subjects. Each class meeting is fifty-five minutes in length, five minutes being allowed for transfer from classroom to classroom. The school is a quiet place during the morning hours. The shops and workrooms are almost deserted, except for the presence of a few honor pupils in advanced courses whose work may take them there, and of some graduates or unemployed adults who are permitted to use the facilities of the school during the morning hours. The library also is by no means fully occupied. Honor pupils are doing some of their work there, but they are relatively few.

The afternoon schedule. In the afternoon the general atmosphere of the school is very different. Pupils are to be seen coming and going within the building and outside it. There are many pupils in the museum, some arranging exhibits, others studying them. The shops and workrooms are in use. The library is well filled with busy students. In several of the seminar rooms small groups of students are at work on their problems. And if we might follow pupils away from the school building, we should find many of them, individually or in groups, independently at work gathering facts or carrying out projects related to what they have been studying in the school.

The amount of afternoon time spent in school work varies, since each pupil's program is his own. This does not necessarily mean that he has chosen it for himself. Particularly in the low-achievement group, pupils are frequently assigned specific tasks to be done at particular times. But even among pupils in the lower group this is not done unless it is necessary. And, it should be understood, any pupil who demonstrates no capacity for undertaking and accomplishing worthwhile work responsibly is ordinarily looked upon by his fellows and his superiors as a candidate for dismissal from the school. Since the school seeks to produce among its pupils to the fullest possible degree the development of initiative, resourcefulness, and responsibility in the application of personal talent to worthy enterprises, it tries to provide an environment in which these abilities can actually function. Accordingly, the entire afternoon is available to the student to be used as he needs to use it. Pupils taking elective courses do much of that work then, and all pupils who have work to be done in connection with their basic courses are expected to do much of it during the afternoon.

Discipline. In general, there is very little need for direct regulation of the behavior of pupils during the afternoon hours. A pupil is not immediately compelled to be at work. Compulsions of that sort are inherent in the standards of achievement in the various levels of instruction. But loafing in the shops is not tolerated, and if any pupil so far departs from the spirit of the school as to interfere with the activities of others who are at work he immediately becomes the object of serious exertions on the part of honor students whose task it is to conserve and improve the civic life of the school, and incidentally to develop their own powers of leadership in so doing.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Contrast the details of this building with those of a recently erected high-school building in your locality.
2. Prepare in graphic form detailed plans for the building in its entirety.
3. Present either a verbal description or a graphic plan showing the detailed arrangement of some part of the building.
4. Consider the implications of locating the principal's office on the second floor near the library. Compare the merits of this arrangement with the

conventional practice of placing the administrative offices near the main public entrance to the building.

5. Many persons believe that a school building, in its external appearance, at least, should be a monumental symbol of local pride. Evaluate the educational implications of this view in contrast with those of the building here described.
6. Investigate the handicaps imposed upon certain secondary schools by the structures in which they are housed and attempt to decide how many years a secondary-school building should be expected to last.

THE SOCIAL AND CIVIC LIFE OF THE SCHOOL

A DISTANT inquirer writing for information about "extra-curriculum" activities in this school might be saddened and discouraged by their apparent absence. The school has a definite policy of not initiating any extra-curriculum activities and of getting rid of them promptly whenever they appear.

This policy is partly a consequence of its broad instructional program. It must be remembered that instruction in this school is concerned not only with the acquisition of knowledge and ability but with their continual employment for the development of more intelligent and satisfying personal living and for the improvement of the welfare of others. It must be remembered also that many types of activity conventionally included in the extra-curriculum programs of secondary schools are here given a definite place in the curriculum of basic courses or in the curriculum of specialized electives.

"School spirit." Undoubtedly, the chief reason for the relative absence of "extra-curriculum" activities is the vitality of the curricular program. Teachers in this school believe that any reasonable demand for the inauguration of a special program of extra-curriculum activities should be interpreted as a warning signal indicating that the primary purposes of the school are not being sufficiently achieved. It would never occur to a supervisory officer in this school to suggest the organization of a club as a stimulating adjunct to instruction in a course, and any person who recommended the development of athletic teams for the purpose of developing "school spirit" would be looked upon as a stranger to the school or as stupid. The fact is that its enthusiasm and vitality are strikingly important qualities of this school.

This enthusiasm grows out of the vigorous belief among the pupils that it is a necessary and meritorious thing to learn to understand what sort of world one is living in and that the school exists to make that possible. The belief is even more strongly evident among the teachers,

who know that they must foster this conviction not only among their pupils, but among themselves. It is doubtless easier for teachers to do this in this school than in many conventional schools where pupils frequently ask, "What is the use of my studying this?" only to receive unsatisfactory replies because there is no reasonable affirmative answer to the question.

But the teachers are not entirely responsible for the nourishment of this vitality. The principal and the supervisory staff consider it to be their most important responsibility. They realize that any established institution tends naturally to become uncritical and desultory concerning its purposes, to pay attention to the immediate details of procedure, to become comfortably fixed in habit, and dead. Hence, they rigorously discipline themselves to keep alive to their main purpose. They seek to achieve in themselves the continual increase of understanding which they hope to produce in their pupils. Although the details of efficient administration are not neglected they are consistently and consciously subordinated to the primary task of stimulating among teachers and pupils alike zeal for the achievement of this high objective. This aim becomes the creed, the challenge, the rallying cry through which all the activities of the school are stimulated and inspired.

This spirit expressed practically through a number of particular aspects of the school program results in the school's being a busy and somewhat unroutinized place. The comprehensive nature of the basic curriculum, the variety of individual assignments given in connection with the work of the basic courses, the variety and flexibility of the specialized elective courses, the increasing development of personal initiative and responsibility expected in pupils — all make necessary a variety of enterprises within the school.

School government. Usually the class meetings in the basic courses occupy the forenoon. Thereafter pupils arrange their schedules of activities to fit their individual needs. Pupils in the honor group are entirely free to do as they think best with their time. Pupils in the middle groups and low groups must meet certain stipulations made by their teachers with reference to the use of their time. The amount of time stipulated by the teacher naturally varies among individual pupils. In a few cases in which the pupils seem to be unable to plan activities wisely the teacher assumes almost complete control of their schedules. And in some cases this means that the teacher will

supervise the activities of the pupils personally. In the majority of cases, however, pupils are free to use the afternoon hours as they wish. Many of them go to work in shops and laboratories, in the museum, or in the library. Some of them whose obligations permit use some time for loafing or other forms of recreation.

Since the school makes it a general policy to hold pupils responsible for results and to give them as much freedom as possible in achieving those results, and since only a few of the pupils are required to work in the afternoons under the immediate direction of teachers in the basic courses, there is naturally a good deal of informality. Particularly in the afternoon hours and throughout the school day there is obvious necessity for regulation and direction of pupil behavior in personal relationships and in the proper maintenance and use of the physical equipment of the school. The pupils and the faculty participate jointly in the determination of regulations and in their enforcement. The policies represented in the government of the school may be said to be realistic. The civic machinery of the school is simple. There is no attempt to institute various and complicated student organizations, offices, and agencies merely for the sake of having them. There is no attempt to ape the governmental organizations of other institutions. This school has no "supreme courts," "district attorneys," "senates," "legislatures," or "chiefs of police." Such officers and agencies as it does have are not imported imitations. They are merely the officers and agencies which seem to be necessary to the efficient and satisfactory organization of the group life of the school.

Furthermore, this school does not have "self-government" in the sense in which the term is ordinarily used. Personal responsibility and self-direction are fostered, but there is no attempt to deny or to gloss over the fact that the principal and the faculty are the superior authorities in the government of the school. There is no pretense at student supremacy in which the faculty controls the school by subtle under-cover work. This would be inefficient school management and dishonest civic training.

Pupils share responsibility. On the other hand, it is recognized that the faculty has no monopoly of talent for wise leadership and that efficiency demands that ability be employed wherever it exists. Accordingly, the pupils in the honor groups are given distinctive responsibilities. Their elected representatives share with the faculty the

responsibility for certain determinations of policy and have general responsibility for direction of the group life of the school. It is generally recognized that the pupils in the honor group are the responsible leaders and it is specifically stipulated that only honor students are eligible to hold the more important offices in the school government. Subordinate offices are filled by pupils in the middle and low groups. It is definitely understood by all members of the school that everyone is under obligation to contribute to the welfare of the school and that officers in the honor group are responsible for the wise determination of general policies and the general plans for administering the social and civic affairs of the school. It is expected that pupils in the lower groups will be subject to direction by their superiors and that they will obediently and co-operatively perform necessary tasks assigned to them.

The aim is to get efficiency and economy by distributing the necessary work widely, so that no pupil is unduly burdened, and intelligently, so that the work assigned to each pupil is appropriate to his talents and inclinations. The school's plan of democratic and rigorous achievement grouping greatly facilitates this delegation of tasks in relation to ability, and the plan for group government supports and confirms the curricular and instructional arrangements.

There is difference of opinion concerning the desirability of requiring honor students to take responsibility for superior contributions and for leadership in the social and civic life of the school. Objectors point out that some students have great intellectual brilliance, but are not accepted in the honor group because they will not or cannot develop competence in active leadership. Critics also observe that some pupils of inferior mentality are very skillful in assuming leadership over others of greater intelligence. It may be that the school will find it wise to relax somewhat its requirement that an honor pupil must be superior not only as a student, but also as a leader in the school's civic life.

The school makes no regular effort to provide specifically and separately for the entertainment or recreation of its pupils. It is assumed that pupils should enjoy their school life and that the effectiveness and value of school work are increased if the pupils find interest and pleasure in it. All who are responsible for it seek to make the school as completely as possible a pleasant, cheerful, friendly place in which to live and work. It is further assumed that the insights and

the abilities developed in school should contribute greatly to the pupils' pleasure, both at present and in the future. To that end the school seeks as far as possible to capitalize the achievements of pupils in their academic work for the pleasure and satisfaction which these achievements offer. Both in the basic courses and in the specialized elective courses pupils are encouraged to undertake projects which will result in contributions to the enrichment of group life in the school. Consequently, frequent assembly programs are almost entirely devoted to the presentation of accomplishments growing out of the academic work of the pupils. These assembly programs represent a balanced pattern of the various fields of interest symbolized by the academic curriculum. Pupils in the honor and middle groups almost exclusively direct the presentation of these programs. They realize that it is a definite obligation to learn how to exercise effective leadership through the popularization of significant ideas and desirable interests. Not only in connection with assembly programs but also in the museum, the library, and the various classes for the low groups particularly, the honor pupils are continually at work in the attempt to present materials and activities which will cultivate interest and promote desirable activities among the pupils generally. In this way the essential elements in the academic curriculum are made to become absorbing centers of interest and activity for all students.

Thus conventional extra-curriculum activities are not definitely excluded by arbitrary fiat. The vigorous interest in the basic program of the school leaves very little room for them.

Alertness to the need of change. This school is not exempt from a tendency which is characteristic of secondary schools generally. This is the tendency of certain activities to become permanent, to be continued repetitively long after the needs which originally produced them have disappeared. The general policy of alertness concerning vestigial traditions applies to all phases of the educational program of the school. Although the content of the basic curriculum changes slowly and gradually, and the offering of specialized electives varies from year to year, the practical projects for the application of the curriculum ordinarily change rapidly from year to year. There are two important reasons for this. One reason is that the wealth of potential opportunities for the application of curriculum concepts in the activities of the pupils is so great that it seems entirely possible to change

them from year to year and very desirable to do this in order to keep the activities of the pupils fresh and vital, to prevent school work from becoming desultory and dull. Another reason grows out of the basic policy of the school with reference to the reciprocal relation of the school and the world. In addition to its interpretive relationship the school seeks also to contribute as much as possible to the improvement of the community for which it exists. When, as frequently happens, there has been developed in the school some project or activity which has demonstrated its value and practicability as a special or supplementary activity, either of two things may happen to it. If it demonstrably has such value and efficiency as to merit inclusion in the school's curricular program it is included therein. If it seems to be a valuable enterprise but unsuited to inclusion in the permanent program of the school it is recommended that it be carried on elsewhere and without the direct guidance or support of the school. Both the program of the school and the life of the community have been enriched as a result of this policy. If after reasonable trial an activity seems to possess neither sufficient merit and practicability to be included in the program of the school nor sufficient appeal to be carried on in the community without sponsorship of the school, it is allowed to die promptly.

Thus the social and civic life of the school is primarily focused upon the basic essentials of its educational program. Its teachers and pupils are energetically and interestedly active in carrying on projects and applications of their academic work. Their activities are varied and numerous, so that they involve the development of many types of aptitude and talent. These activities are regulated on the assumption that the development of intelligent and responsible leadership and appreciative and co-operative followership are both essential and desirable.

There are in the local community certain groups of persons and established organizations who lack convenient facilities for carrying on certain desirable leisure-time activities. The school authorities encourage the fullest possible community use of the school building and its equipment, provided such use does not interfere with the efficient operation of the school as a school. At present a number of special groups and organizations use parts of the school building at times when it would not otherwise be used. In some cases members of the school participate in activities of these groups, but such participation is not

recognized nor encouraged as a part of the work of the school. As in the case of the administration of health service, the school may co-operate in making possible or in making more convenient or economical various community enterprises. But with deep appreciation of its essential objective of presenting to youth a harmonious interpretation of the world and developing increasing ability in the application of intelligence and talent for the improvement of life, the school zealously avoids those dissipations and dilutions of effort which might diminish its major achievement.

PROBLEMS AND PROJECTS FOR FURTHER CONSIDERATION

1. Analyze and evaluate "school spirit" as it exists in a conventional school, paying attention particularly to methods of stimulating it, the character of the matters to which pupils are zealously loyal, and the ways in which they usually give expression to their enthusiasms, if any.
2. Some persons doubt whether young people have sufficient wisdom and maturity to become very enthusiastic about the sort of program which is available in this school. They even doubt whether the most zealous efforts on the part of the faculty can ordinarily be expected to arouse and maintain the enthusiasm of pupils without resorting to various extraneous stimulants. Are these doubts reasonable?
3. Another object of suspicion and doubt is the fact that pupils are allowed so much freedom and personal responsibility during the afternoon hours. Some persons hold that school work must be uniformly regimented if it is not to break down into disorder and confusion. Consider from many viewpoints the advantages and weaknesses of this phase of practice in the school.
4. Contrast the government of this school with that in a secondary school with which you are familiar.
5. Disregarding its appropriateness or inappropriateness in contributing to efficient conduct of the educational program of the school, evaluate the social and civic life in this school in terms of its value as a preparation for life outside the school.

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